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# Place as a positive reflection of self

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**Place as a positive reflection of self**

by

**Cynthia A. Kelly**

A thesis submitted to the graduate faculty  
in partial fulfillment of the requirements for the degree of  
MASTER OF ARTS

Major: Interior Design

Program of Study Committee:  
Fred Malven, Major Professor  
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Ames, Iowa

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## ABSTRACT

This thesis is about the relevance of interior design to our complex and fundamental relationship to place, by defining *placeness* and its significance to self. Environmental psychology asserts that it is inaccurate to talk about a person outside of his or her context. Designers are essentially striving for a meaningful “person-environment fit” and creating a womb with a view, therefore nurturing and reflecting who we are and our priorities, positively (Gallagher, 2006).

The study of home and place is entwined with several areas including: sociology, anthropology, psychology, human geography, history, architecture, and philosophy (Mallett, 2004). This study is about creating a sense of place through interior design that reflects self through innate needs related to Maslow’s hierarchy and preferences, related to portrayed self. Through this creation of *placeness*, we create the tools for an individual’s higher self and their environmental communication of that self with themselves and others. Environmental cues are meant to elicit appropriate emotions, interpretations, and behaviors, therefore communicating through the setting the most appropriate choices to be made for the situations and contexts (Rapoport, 1982).



## INTRODUCTION

### Statement of the Problem

Increasing urbanization, global economy, disposable culture, and transient populations have led to a trend in lack luster housing. Most researchers give the same answer to what the most important environmental influence on behavior in the twenty-first century: urbanization (Gallagher, 1993). This comparatively recent population density shift, without careful consideration of consequences and holistic solutions, may have dire results related to our environmental interactions. Dolores Hayden, professor of architecture at Yale, stated how “homes in suburbia play a big role in American economy and have been pushed very effectively, resulting in urban, multifamily housing, ignored by architects” (Gallagher, 1993, p. 278). This fact leaves many trapped in sensory dull dwellings, with fundamental needs left unmet.

“Society quickly adapted to its new indoor urban environment, with most clustering in metropolitan areas. We have begun to question the trade-offs we unwittingly make in order to live sealed up inside an artificially heated, cooled, and lighted world that is structured around economic rather than biologic concerns” (Gallagher, 1993, p. 13).

Frank Lloyd Wright stated, “a house of moderate cost is not only America’s major architectural problem, but the problem most difficult for her architects” (Gallagher, 2006). References are seldom made to the unique perceptual and emotional capacities of the human beings, instead, there appears to be an assumption that, “architecture is a highly specialized system with a set of prescribed goals rather than a sensual social art responsive to real human desires and feelings” (Malnar and Vodvarka, 2004, preface). Most studies done on architecture and materials are not done on the psychological level, a subconscious or innate level, ignoring the opportunity for design to reflect a more positive way of living and having a holistic environmental connection in response to place. Vincent Scully states, “the stuff all of us are consuming seems less and less nourishing. It is not surprising that our architecture reflects that condition” (Malnar and Vodvarka, 2004, preface).

We all possess a “fundamental human need for a sense of home and domestic well-being that is deeply rooted in us, and must be satisfied” (Rybczynski, 1987, p. 217). However, according to Alexander (1977), “it is very clear that all those processes which encourage speculation in land, for the sake of profit, are unhealthy and destructive, because they invite people to treat houses as commodities, to build things for ‘resale,’ and not in such a way as to fit their own needs” (p. 394).

McMansions and urban sprawl cannot be sustained but better design can fill the void dwellings are suffering by creating a sense of *placeness*. There is an increasing need for well-designed housing that addresses sensory, privacy, mental, and emotional needs of an ever-increasing human-disconnect and tech-connecting society. Essentially, we must strive to live in spaces that support the way we actually live (Gallagher, 2006).

### Purpose

This study is about establishing a theory of *placeness* defined in terms of interior design elements that reflect and project the users positively in conscious and subconscious ways. The purpose of this study is to bring to light the possibility of building blocks that capture an automatic, innate, and holistic response related to the positive association with designed space or *placeness*, as defined later, and our fundamental needs. This is a two-part goal. The first being a concrete definition and facilitation of *placeness* through interior design element preferences in conjunction with established needs hierarchy. The second being how a positive symbiotic relationship with our environment and met needs can ultimately achieve a higher pinnacle of “self.” A designer’s highest goal is to capture an instantaneous, positive experience through a space interaction. “Place is the basic unit of interior design, so to master place, one must master space,” (Rengel, 2007, p. 9).

## Objectives

The objectives of this study include the following:

1. Define *placeness*.
2. Address what factors in interior design, reflect positive and holistic attributes in one's self and contributes to *placeness* preferences.
3. Determine associating levels and progression rankings between Maslow's hierarchy and interior design categories, that when achieved together create a higher level of self.
4. Determine if the proposed interior design hierarchy is an accurate preference representation of an individual's self-reflection.

By defining the interior design categories associated with Maslow's hierarchy of needs, we can facilitate a dynamic communication between the environment, each other, and ourselves. Through this communication, we can reflect positive aspirations and expressions, ultimately reaching our highest potential of self.

## Research Questions

The primary goal of this study is to address the subconscious and innate preferences between interior design and positive memorable relationships with built space, which in turn interact and create versions of self.

1. Which key aspects in interior design speak to our innate needs and positive connection to our built interiors? [PLACE PREFERENCES DATA]
2. How interactive and intuitive is the proposed *placeness*/Maslow's need hierarchy association and relationship? [CURRENT KNOWLEDGE OF MASLOW'S HIERARCHY ASSOCIATION DATA]
3. How various defined interpretations of self-image and specific lifestyle motives are displayed in interior design preferences? [INDIVIDUAL ROLES OF SELF DATA]
4. How do screener/nonscreener preferences distinguish interior designs self-reflection and environment interaction? [INDIVIDUAL ROLES OF SELF DATA]

## Scope/Setting

The main focus group of this study includes upper level students and faculty/staff at a large, mid-western university. This study is attempting to address transient populations (students) and homeowners (faculty/staff) related to place and design's impact of positive self-reflection through place. The initial, immediate response a person has upon walking into a space (residential entryway and/or foyer) was chosen as a hypothetical setting, hoping to capture the visceral, immediate response of space, resulting in avoidance or engagement.

Architect, Melanie Taylor, says "an inviting door is a powerful psychological symbol. A welcoming entrance is the most enduring feature of our home – part of the American dream. We have long loved that sequence from inviting porch to nice solid door to spacious hall." (Gallagher, 2006, p. 40)

The entryway depicts a communication to both visitors and a communication with the environment, designed and external. "Settings must communicate and must be congruent with the situation so as to facilitate congruent acts" (Rapoport, 1982). The entryway and foyer represents the threshold from the elements of the outside world and the entrance to a nurturing, positive intimate space. A place we can decompress and negate the work day or stresses of our larger world and flip into our sanctuary space, our *placeness* and positive reflection." (Miller & Schlitt, 1985) Alexander (1977) states, "The process of arriving in a house, and leaving it, is fundamental to our daily lives" (p. 554). Yet, Gallagher (2006) states, "Limited research has been done concerning how the average home could improve the average person's daily experience" (p. xviii). However, the following studies touch upon the mentality and necessity of a transitional area, such as an entryway, in order to communicate *placeness*.

"Michael Christiano, while a student at the University of California, made the following experiment. He showed people photographs and drawings of house entrances with varying degrees of transition and then asked them which of these had the most "houseness". He found that the more changes and transitions a house entrance has, the more it seems to be "houselike." And the entrance, which was judged most houselike of all, is one which is approached by a long open sheltered gallery from which there is a view into the distance." (Alexander, 1977, p. 550)

This study depicts several interior design elements that come together to capture psychological and innate environmental needs, as visitors and homeowners: control, social engagement, and interest. This thesis will go more in depth regarding these proposed levels, plus others, and their association with *placeness*.

Another study looked at exhibit psychology and participant's engagement. This study relates to a home's entrance by delineating the emotional and social implications.

"Robert Weiss and Serge Bouterline (1962) reported in their study that many exhibits failed to 'hold' people; people drifted in and then drifted out again within a very short time. However, in one exhibit people had to cross a huge, deep-pile, bright orange carpet on the way in. In this case, though the exhibit was no better than other exhibits, people stayed. The authors concluded that people were, in general, under the influence of their own 'street and crowd behavior', and that while under this influence could not relax enough to make contact with the exhibits. But the bright carpet presented them with such a strong contrast as they walked in, that it broke the effect of their outside behavior, in effect 'wiped them clean', with the result that they could then get absorbed in the exhibit" (Alexander, 1977, p. 550)

Weiss and Bouterline's study touches upon the subconscious reaction to an environment and the association to certain "self" responses. We all have public and private selves, guarded and vulnerable selves. In support of Weiss and Bouterline, Alexander (1977) references the correlation with our homes, which helps to explain the importance of the transition:

"People want their house, and especially the entrance, to be a private domain. If the front door is set back, and there is a transition space between it and the street, this domain is well established. This would explain why people are often unwilling to go without a front lawn, even though they do not use it" (Alexander, 1977, p. 550).

The question is, how does the environment set the stage and communicate positively and appropriately to these versions of self. Alexander (1977) states another correlation with Weiss and Bouterline's study and feelings of home:

"While people are on the street, they adopt a style of 'street behavior'. When they come into a house they naturally want to get rid of this street behavior and settle down completely into the more intimate spirit appropriate to a house. But it seems likely that they cannot do this unless there is a transition from one to the other which helps them to lose the street behavior. The transition must, in

effect, destroy the momentum of the closed off tension and 'distance' which are appropriate to street behavior, before people can relax completely" (p. 550).

This necessary transition area is relevant to modern day culture. "Even though the car is so important to the way of life in a modern house, the place where car and house meet is almost never treated seriously as a beautiful and significant place in its own right" Alexander (1977, p. 556). In relation to our present day models, Taylor states "the car-oriented lifestyle means that residents mostly pull into the garage, traipse past the trash cans and tools, and slip into the house through a metal utility door that leads to the laundry room" (Gallagher, 2006, p. 43). This transition area does not let us accomplish the necessary psychological break and decompression we all desperately need, from the hectic world outside and our hopefully, private oasis inside our homes. Additionally, Taylor, states:

"Skilled architects and designers increasingly provide homes with a second, informal entrance that's geared to the car but also welcome the person. If you stepped down onto a small balcony that frames a nice vista, you'd get the chance to have this little Zen moment of separation. You can leave your car and daily cares back in the garage, connect with your surroundings, and get that quiet feeling of 'I'm truly home'. This can set the tone for a relaxed but civilized behavior desired in your home" (Gallagher, 2006, p. 43).

While traveling, this author met a woman from Brazil. When she was young, her father told her a rule he lived by in order to have a happy home. He insisted you must always leave your workbag hanging on the tree in the front yard, before coming through the front entry. Symbolically, the author believes this speaks to an effective and welcoming transition area that facilitates the state you want to be in, when you are at home. Taylor also addresses the "Zen ideal of giving up something through a complex entry, which results in a process of discovery, all requiring presence in the moment" (Gallagher, 2006, p. 39).

"Taylor states how entering your home should be a series of filters as you come in. You should dispense with all the everyday things by creating a behaviorally minded, katura-like entry that sets the stylistic tone for the rest of the home. A 'cleansing experience' of calming sights and sounds, smoothing the transition from world to haven and connecting the home with nature" (Gallagher, 2006, p. 41).

Whether it is a “katsura” (ornamental eastern Asian tree) or an “aedicule” (a point of interest or anchor) or a “tokonoma” (a specific area for display), the same act is achieved which is a pause or mindful interruption before entering a cherished place. Over stimulated and stressed at work, walking through the threshold of our homes should allow us to leave all the troubles behind and engulf us in the positive and nurturing space we have created, subconsciously and deliberately.

## LITERATURE REVIEW

The review of literature includes several associations and interpretations to place and design's relationship. Maslow's hierarchy is briefly covered and the possible design associations are proposed, through a hierarchical format. Interior design categories are covered and their relationship to establishing *placeness*. Then finally, influences of self, involved in environmental preferences, are addressed.

### Introduction

Through transitions and economic downturns and displacement, establishing a feeling of connection is vital to self-preservation and promotion. A person may not be able to easily change the architecture of their private dwelling, but they can more easily manipulate the interior design elements. The focus group consists of transitional residents and homeowners in order to capture a realistic view of present housing concerns and built environment manipulation, to project positive self.

“Home exists as much between our ears as in a building. What really makes a home is how successfully it supports our daily activities and expresses and nurtures our best thoughts, memories, feelings, and patterns of behavior – our way of life, of which our current residence is one manifestation” (Gallagher, 2006, p. xix).

### Definition of *Placeness*

The first objective of this thesis is to attempt to define *placeness*. Home and *placeness* have a complex meaning. Instead of home and homeness as the primary focus of this thesis. *Placeness* has been used in order to capture an interior space that captivates and engages the user due to elements, but may not necessarily be a primary dwelling. *Placeness* has been described in many ways, depending on varying perspectives. However, *placeness* and home cannot simply be a matter of shelter and refuge, but a feeling of innate comfort and belonging. Place must speak to our curiosity and understanding of relationship to past experiences with the built environment.



Furthermore, “home and more particularly being at home is a matter, at least in part, of affect or feeling” (Mallett, 2004, p. 79).

This author asked a graduate class to define *placeness*, which resulted in varied responses, but touched upon a common thread: an emotionally triggered, sensory engaging, and memorable experience of a space.

- *Placeness* represents a place that does not necessarily mean volume, but an emotional response engaged through our many senses.
- *Placeness* equates with an experience, not solely a destination.
- *Placeness* is the essence or what we are left with as a memory and feeling of a space.
- *Placeness* is a newness and an awe that remains dominant and memorable.
- *Placeness* is memorable and fulfilling.
- *Placeness* is a hierarchy of space with history, sense, and function.

Many definitions live in a transitional realm, where we feel at ease as ourselves.

*Placeness* has many facets from past experiences, relationships, neighborhoods, architectural features, and design. Proshansky (1983) states, “the perceived stability of place and space that emerges from such recognitions [of the physical environment] correspondingly validates the individual’s belief in his or her own continuity over time” (Bonnes, Lee & Bonaiuto, 2003, p. 216). It is a “place where space and time are controlled and ‘structured functionally, economically, aesthetically and morally’ and where domestic ‘communitarian’ practices are realized” (Mallett, 2004, p. 66).

- “*Placeness* could blend our present sense of house and our buried sense of home” (Israel, 2003, p. ix).
- “Place is a pause in movement” (Tuan, 1977, p. 138).
- “Place is a location of experience. It evokes and organizes memories, images, feelings, sentiments, meaning and the work of imagination” (Malnar and Vodvarka, 2004, p. preface).
- “Permanence is an important element in the idea of place” (Tuan, 1977, p. 140).

These definitions can take on an almost philosophical or existential meaning when relating an intimate relationship or giving a personification to a dwelling.

“Place is constituted by the particular social relations that occur in a specific location, the social effects that arise in this interaction and its positive interrelations with elsewhere or outside. The boundaries of place and/or home are permeable and unstable. Places have no fixed or essential past. The identity

and meaning of a place must be constructed and negotiated” (Mallett, 2004, p. 70).

We relate our most memorable experiences and feelings with a space and place, that transitions *placeness* as a fluid term and relationship, transpiring over life stages and development. “Home is place, space, feeling, practice and/or an active state of being” (Mallett, 2004, abstract). We conjure up old feelings and trigger senses that have long past; such as, smells, tastes, and touch that are coupled with place associations.

“An entire past comes to dwell in a new home. Thus the house is not experienced from day to day only, on the tread of a narrative or in the telling of our own story. Through dreams, the various dwelling-places in our lives co-penetrate and retain the treasure of former days” (Israel, 2003, introduction).

“Physical dwelling or shelter is described as simply one aspect of home, there is also a domestic morality that home and *placeness* conjures” (Mallett, 2004, p. 65).

De Botton (2006) further supports the deeper meaning of home as being a “representation and question of the values we want to live by – rather than merely of how we want things to look” (p. 73). Mallett (2004) states, “ideas about privacy, intimacy, domesticity and comfort are also prominent and recurring themes in contemporary analyses of the meaning of home” (p. 67).

“Home is an intimate place. We think of house as home and place, but enchanted images of the past are evoked not so much by the entire building, which can only be seen, as by its components and furnishings, which can be touched and smelled as well: the attic and the cellar, the fireplace and the bay window, the hidden corners, a stool, a gilded mirror. This surely is the meaning of home, a place where every day is multiplied by all the days before it” (Tuan, 1977, p. 144).

Tuan (1977) discusses the relationship between time and place, resulting in a necessary permanence. Defining *placeness* as an “attachment to space through a function of time as motion or flow” (Tuan, 1977, p. 179).

Tuan (1977) also defines aspects of place as the following:

- Place is a pause in the temporal current.
- Place takes time to know.
- Place is time made visible.
- Place is a memorial to times past.
- Place is seldom acquired in passing.

Regardless of duration, this necessity of at least the feeling of permanence whether it is associated with a depth of time or a lasting impact is addressed by the philosopher James K. Feibleman:

“The importance of events in any life is more directly proportionate to their intensity than to their extensity. It may take a man a year to travel around the world – and leave absolutely no impression on him. Then again it may take him only a second to see the face of a woman – and change his entire future. A man can fall in love at first sight with a place as with a woman” (Tuan, 1977, p. 184).

The author, Tuan, also talks about relevant life-stages and “permanence” impact:

“Many years in one place may leave few memory traces that we can or would wish to recall; an intense experience of short duration, on the other hand, can alter our lives. This is a fact to bear in mind. Another is this. In relating the passage of time to the experience of place it is obviously necessary to take the human life cycle into account: ten years in childhood are not the same as ten years in youth or manhood. The child knows the world more sensuously than does the adult. This is one reason why the adult cannot go home again” (Tuan, 1977, p. 185).

“Place is an organized world of meaning. It is essentially a static concept. If we see the world as process, constantly changing, we should not be able to develop any sense of place” (Tuan, 1977, p. 179).

This author’s definition of *placeness* is as follows:

Unrelated to duration and resulting in a lasting emotional, psychological and physical affect of space association, *placeness* is an accumulation of an individual’s holistic, environmental preferences and comfortability. Requiring the engagement of territorial control, social interaction, and memorable sensory experience, *placeness* results in an intimate, permanent familiarity that becomes part of one’s conscious and unconscious self-identity. It shapes the relevance, remembrance and reflection of our past, present and future self.

### History of Home

The history of home is fundamental to what we dream for in our own homes. The environmental elements are linked to past associations and meanings that link us to what we believe defines home. “People from diverse backgrounds express a consistent preference for a freestanding house with a yard and occupied by a single

family” (Mallett, 2004, p. 67). Many of our innate reactions and preferences are based on meaning and associations we have established over time. People like certain urban areas, or housing forms, because of what they mean, since they react to environments globally and affectively before they analyze them and evaluate them in more specific terms (Rapoport, 1982). Rybczynski (1987) also states, “cultural ideas, like comfort, have a life that is measured in centuries” (p. 217). For instance, “during the 17<sup>th</sup> century ideas about privacy, domesticity, intimacy and comfort emerged as organizing principles for the design and use of domestic spaces among the bourgeoisie, particularly in the Netherlands” (Mallett, 2004, p. 66). John Lukacs states “these and the concept of the home, as the principle achievements of the Bourgeois Age, in *The Bourgeois Interior*” (Rybczynski, 1987, p. 51).

“Key signifiers of home: ‘shelter, hearth, privacy, roots, abode and (possibly) paradise’. Where hearth refers to a welcoming, warm and relaxing physical environment, heart refers to a loving, supportive, secure and stable environment that provides emotional and physical well-being. Home as privacy means a space where one has the capacity to establish and control personal boundaries. The term roots denotes home as a source of identity and meaning in the world and finally paradise refers to a constellation of positive idealized notions of home, evident in but not confined to the other key signifiers” (Mallett, 2004, p. 82).

According to Rapoport (1982) important psycho-social consequences of the house become particularly important because of the emotional, personal, and symbolic connotation and therefore giving the house meaning along with form. Rybczynski (1987) referenced the bourgeois great room and their early minimalism:

“The typical bourgeois townhouse of the 14<sup>th</sup> century also combined living and work. The living quarters consisted of a single large chamber, which was open up to the rafters. People cooked, ate, entertained, and slept in the space, yet the interiors looked empty. Minimalism is not a modern affectation” (p. 25).

“The industrial revolution effected the constitution of households and participation in and organization of work,” according to Mallett (2004, p. 67).

“Prior to industrialization work was primarily situated in households, which comprised family members and other non-kin workers and boarders. The organization of these households was predicated on sociability rather than

privacy. As industrialization took hold, work was relocated away from the home” (Mallett, 2004, p. 71).

Due to industrialization, urbanization and the related transformation of family life and work, homes are increasingly seen as a domestic retreat for the nuclear family and therefore, a large majority of us are living in the car-oriented suburbs (Mallett, 2004). What do we need to counter this relatively new shift in our fundamental needs for home and the meanings we associate with home? There are persistent and recurring attributes that depict home to people (Becker, 1977):

1. Personalization
2. Free standing dwelling unit
3. Self-owned
4. Fireplace
5. Trees and grass
6. Pitched roof
7. Control
8. Privacy.

In another investigation into the meaning of home that touches upon a more emotional tie, Hayward (1978) discovered, among young people in Manhattan, nine dimensions of home (Rapoport, 1982):

1. Relationships with others
2. Social networks
3. Statement of self-identity
4. A place of privacy and refuge
5. A place of stability and continuity
6. A personalized place
7. A locus of everyday behavior and base of activity
8. A childhood home and place of upbringing
9. Shelter and physical structure

### **Historical and contextual fit related to place**

“Homes should not only harmonize with their parts but also cohere with their settings and speak to us of the significant values and characteristic of their own locations and settings” (De Botton, 2006, p. 219). History of the meaning of home is important to understand, in order to understand place.

“The way of life is remembered, or simply imagined, it nevertheless signifies a widely held nostalgia. Is it simply a curious anachronism, this desire for

tradition, or is it a reflection of a deeper dissatisfaction with the surroundings that our modern world has created? What are we missing that we look so hard for in the past?" (Rybczynski, 1987, p. 13).

Mid-century style pays homage to a no-fuss, stylish, outdoors oriented, and fun way of living, evident in the Eameses' home (Gallagher, 2006). "Contexts in which we have previously seen – trigger memories and communicate by prompting associations" (De Botton, 2006, p. 93). De Botton (2006), also states, "the mid – century case study homes were buildings that spoke of honesty and ease, of a lack of inhibition and a faith in the future and reminded the owners what they longed for in their hearts" (p. 144). Therefore, certain styles are relevant to history and the mind-set during that era, representative of a "vernacular building tradition" (Gallagher, 2006, p. 24). "We have very pivotal experiences, thoughts, and feelings around very precise architectural elements" (Gallagher, 2006, p. 56).

"Architects and historians have examined the ways design, spatial organization, and furnishings of domestic dwellings influence and inflect concepts and/or ideologies of the home. They assert that the spatial organization of domestic dwellings both influences and reflects forms of sociality associated with and/or peculiar to any given cultural and historical context. In other words, household designs, furnishings and technologies constrain or facilitate cultural and historical modes of relating between the people who share these spaces" (Mallett, 2004, p. 66).

"The Queen Anne house offers similar lessons in informal planning. The Victorians were faced with technical devices more innovative than our own, and the ease with which they incorporated new technology into their homes without sacrificing traditional comforts is instructive. The American home of 1900 to 1920 shows that convenience and efficiency can be dealt with effectively without in any way creating a cold or machinelike atmosphere" (Rybczynski, 1987, p. 221).

According to Rybczynski (1987), "Americans may be fascinated with the future, but they do not want to live in it" (p. 213). People crave character found in the older home's innately appealing features: alcoves, interesting windows, custom woodwork, fireplaces, and inviting porches (Gallagher, 2006). "Plainly sculpted door handles are virtues of sobriety and moderation, delicate settings of a pane of glass are a theme of gentleness" (De Botton, 2006, p. 117). According to Miller & Schlitt (1985), "people

generally enjoy little oases or pockets of comfort that beckon around corners, giving the home a sense of personality” (p. 12).

“People want layouts that jibe with their daily lives, most don’t want something that’s never been seen before, something cold and hard, alien and alienating. We’re creatures who like to snuggle into warmth. We connect home with our hearts and souls. Most modernist architecture doesn’t speak to that” (Gallagher, 2006, p. 39).

Furnishings that reinforce the historical significance of the house, its architectural style, or the area in which it is located can depict a certain individuality of a home (Miller & Schlitt, 1985). For example, “early American or colonial furniture, which in most people’s imagination represents a link to the values of the Founding Fathers, the Spirit of ’76, an integral part of the national heritage,” states Rybczynski (1987, p. 10). Even the density of interior decoration can have a link to a certain era, due to the varied size and function of rooms (Rybczynski, 1987).

“The ebb and flow of density varies – like fashion, like the length of women’s skirts and men’s hair. It is function of how much patterning and clutter the eye can stand. This is not just a question of historical periods or styles, for even within one period density can change. An English new-Palladian interior in 1720 was denser than twenty years later; on the other hand, mid-Victorian rooms were not nearly as cluttered, as were those in the 1870s, especially if they were Queen Anne. After 1920, there was a decided shift in popular taste, and rooms became less dense, a trend that reached its culmination with the Minimalism of the 1970s. Since then, according to Thornton, there has been a perceptible shift toward greater fussiness and more patterns, exemplified by a renewal of interest in the previously ignored Victorian interior” (Rybczynski, 1987, p. 198).

Even though our growing demographic diversity results in the necessity for more flexible domestic architecture, Frank Lloyd Wright captured a consistent desire by regarding the home as a spiritual refuge and focusing on the ancient comfort of the hearth (Gallagher, 2006). The flexible great room provides a relaxed and flowing living-dining area in reference to the long established great room: a symbol of comfort, domesticity and togetherness (Gallagher, 2006). Vincent Scully, architectural historian, states, “the open and informal main living area became the living core of the house and paralleled behavioral freedom” (Gallagher, 2006, p. 119). Phenomenology or the study of values, sentiments, attitudes, ideas, beliefs and choices should be used to predict

human behavior, therefore “social behavior, a function of habits and customs, is more durable than demographics” (Rybczynski, 1987, p. 217). Therefore, “the nuclear family may be increasingly irrelevant in contemporary Western societies, and that other household forms might be equally pertinent to the constitution of home” (Mallett, 2004, p. 73).

### Present Day Void

“Home as haven is an idealized, romanticized even nostalgic notion of home that is at odds with the reality of peoples lived experience of home” (Mallett, 2004, p. 75). As stated in the previous section, “nostalgia for the past is often a sign of dissatisfaction with the present” (Rybczynski, 1987, p. 214).

“Colonial Americans produced our classic farmhouse, Victorians, the enduring Queen Anne, Shingle styles. Midcentury moderns created the open-plan ranch and apartment, but we early twenty-first-century Americans have no comparably fine dwelling that expresses and supports who we want to be and how we want to live. The home most identified with our era is the pseudo-historical McMansion, but they offer more generic calories than environmental nourishment. These McMansions have dramatically increased the home size to 2,200 sqft, up from 980 sqft in 1950 and 1500 sqft in 1970. America’s typical home is a relatively new, single-family detached house of three bedroom, 2 ½ baths, and big garage” (Gallagher, 2006, p. 21).

Gallagher (2006) states, “Builders make money by the square foot, so the average house is geared to a nuclear family, bigger than ever, and often poorly proportioned” (p. 23). Our society is changing what we need from our homes. Despite what we hold nostalgic, we must look at how home design can meet several different needs. Rapoport (1982) also references how meaning gains importance when it is realized that the concept of ‘function’ which is so important in the modern movement, is considered, it is quickly realized that meaning is central to an understanding of how environments work. “Memories of the traditional can be important, for they illuminate and transform the present” (Mallett, 2004, p. 70). Rybczynski (1987) states the necessity to look back at what worked in times past, to nurture and sustain us:



“What is needed is a sense of domesticity; a feeling of privacy; an atmosphere of coziness. Postmodernism is more interested in architectural history than in the evolution of the cultural ideas that history represents.

Another tradition that should be reexamined is that of convenience. In many parts of the house, the pragmatism of the early domestic engineers has been lost in the emphasis on visual appearance. Aesthetics, not practicality, predominate.

What is needed is a reexamination not of bourgeois styles, but of bourgeois traditions. We should look at the past not from a stylistic point of view, but regarding the idea itself of comfort. The 17<sup>th</sup> century Dutch bourgeois interior, for example, has much to teach us about living in small spaces. It suggests how simple materials, appropriately sized and placed windows, and built-in furniture can create an atmosphere of cozy domesticity. The way that Dutch homes opened up onto the street, the careful variety of types of windows, the planned gradient of increasingly private rooms, and the sequence of small sitting places are architectural devices that are applicable still” (Rybczynski, 1987, p. 221).

Home is a tool for the life you want, not a statement related to a commercialized photo shoot in a design magazine. However, we are bombarded with images from magazines and movies, dictating our view on what our home should be and who we should be inside our homes. Unfortunately, “most of our information about the home comes from profit-driven experts, media, and merchants, who insist that how our houses and apartments look is more important than the less commercial but more crucial issue of how they make us feel” (Gallagher, 2006, p. xviii). Gallagher (2006) brings up the issue of how “designers emphasize the question of ‘how does it look’, while the buyer is wondering, ‘how does it make me feel and does it meet my needs?’” (p. 23). For example, the focus on appearance as opposed to the feel of a space could be due to these possible influences:

- Unattainable lifestyles, created in Hollywood
- Profit driven markets, influenced by builders and developers
- Huge, modern housing industry’s low-overhead
- Mass-production orientation
- Modernist architecture’s emphasis on public buildings rather than private dwellings
- Aesthetics and novelty valued over behavior

“From a spiritual point of view, the home doesn’t seem authentic; the effects of poorly proportioned, ill-conceived, ugly spaces that don’t fulfill your functional needs” (Gallagher, 2006, p. 26).

“Modern interior has experienced ‘a rupture in the evolution of domestic comfort.’ This rupture has led to change in social habits, and even to alter the underlying cultural meaning of domestic comfort. Its denial of bourgeois traditions has caused it to question, and reject, not only luxury but also ease, not only clutter but also intimacy. Its emphasis on space has caused it to ignore privacy, just as its interest in industrial-looking materials and objects has led it away from domesticity. Austerity, both visual and tactile, has replaced delight. What started as an endeavor to rationalize and simplify has become a wrong-headed crusade: not, as is often claimed, a response to a changing world, but an attempt to change the way we live. It is a rupture not because it does away with period styles, not because it eliminates ornament, and not because it stresses technology, but because it attacks the very idea of comfort itself. That is why people look to the past, searching for something that they do not find in the present – comfort and well being” (Rybczynski, 1987, p. 214).

“When landlords try to build new rental properties which are immune to neglect (gardens are replaced with concrete, carpets are replaced with linoleum, and wooden surfaces by formica), it is an attempt to make the new units maintenance-free, and to stop the slums by force; but they turn out cold and sterile and again turn into slums, because nobody loves them” (Alexander, 1977, p. 394).

Gallagher (2006) further reiterates the fact “urban sprawl is not infinitely sustainable and the need for more inventive, appealing ways to create high-density communities and multi-family housing” (p. 281).

“The high-rise apartment building is rejected by most Americans as a family home because, it gives one no territory on the ground, violates the archaic image of what a house is, and is perceived unconsciously as a threat to one’s self-image as a separate and unique personality. The house form in which people are being asked to live is not a symbol-of-self, but the symbol of a stereotyped, anonymous filing-cabinet collection of selves, which people fear they are becoming” (Becker, 1977, p. 19).

This is precisely the point to re-examine the meaning and definition of home and *placeness*, striving for better design to fill the void dwellings are suffering, and meeting the fundamental needs people associate to place preferences. “We need to feel more at home at home” (Gallagher, 2006, p. iii).

*Placeness is Innately Linked to Design*

**Environmental psychology application**

“Now modern science is confirming that our actions, thoughts and feelings are indeed shaped not just by our genes and neurochemistry, history and relationships, but also by our surroundings. More than two thousand years ago, Hippocrates’ observation that our well-being is affected by our settings” (Gallagher, 1993, p. 12).

“Our houses and apartments require psychological as well as physical customization” (Gallagher, 2006, p. 12). “Psychological development is punctuated not only by meaningful emotional relationships with people, but also by close affective ties with a number of significant physical environments, beginning in childhood” (Marcus, 1995, p. 4).

“The World Health Organization defines health as ‘a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.’ The built environment affects all these aspects of health” (Sternberg, 2009, p. 294).

“We are in tune with our environment from our simplest level up through any stage in our development” (Gallagher, 1983, p. 16). Taking the perspective of a science of place and approaching our homes from an environmental-behavioral perspective, will enhance our interactions with place.

“Your home may not look like the ones in the magazines, but much more important, it will support your identity, foster both privacy and sociability, buffer you from stress and connect you to the larger world. Because this kind of home satisfies you on evolutionary, personal, and cultural levels, it invites you to feel both relaxed and interested, shelter and fascinated. Behavior-inspired design” (Gallagher, 2006, conclusion).

Place must be about engaging our minds and delighting our hearts. “People are sensitive to lighting, spatial arrangements, noise and other ordinary features of our surroundings requiring more supportive, personalized environments” (Gallagher, 1993, p. 18). These environmental preferences don’t just facilitate physical health, but also emotional and mental health.

Sternberg (2009) states “the need to create places that help us to live in harmony with the environment and sustain our health. Architects through the ages have tried to do the latter: the ancient Greeks, who prized the “golden mean”; Christopher Wren, whose St. Paul’s Cathedral captured sound; Frank Lloyd Wright and the Modernists, who created the light and airy buildings of the early twentieth century; Lois Kahn, who built the Salk Institute in alignment with La Jolla’s ocean cliffs. An awareness of how place affects mood and behavior, and in turn our health, is helping today’s architects and designers design places that work with our bodies to maintain health and promote healing, rather than work against us to worsen stress and disease” (p. 291).

### **Self, subconscious, and innate relevance**

“At its most genuine, the architectural impulse seems connected to a longing for communication and commemoration, a longing to declare ourselves to the world through a register other than words, through the language of objects, colors and bricks: an ambition to let others know who we are – and, in the process, to remind ourselves” (De Botton, 2006, p. 126). “One of the most fundamental archetypes, the freestanding house on the ground, is a frequent symbol of the self” (Mallett, 2004, p. 82). “For philosophers such as Kuang-Ming Wu, home refers to the inter-subjective relationships that bring a self, person or I into being or existence. Home is therefore understood as fundamental to being” (Mallett, 2004, p. 83). “We all have evolutionary, personal, and cultural needs of which many of us are mostly unaware” (Gallagher, 2006, p. 1). “Basic needs are very often largely unconscious” (Maslow, 2013, p. ##). “Particular works of architecture are more or less adequate responses to our genuine psychological needs” (De Botton, 2006, p. 166). “Deep evolutionary needs, personal preferences, and cultural influences that we are often only subliminally aware of, make us feel at home” (Gallagher, 2006, p. 1).

“A home is merely any place that succeeds in making more consistently available to us the important truths which the wider world ignores, or which our distracted and irresolute selves have trouble holding on to. As we write, so we build: to keep a record of what matters to us” (De Botton, 2006, p. 123).

“A piece of domestic architecture can assist us in the commemoration of our genuine selves” (De Botton, 2006, p. 119). Psychologist, Mihaly Csikszentmihalyi, states, “just as we keep flattering photographs of ourselves and discard the lemons, we edit our

possessions, giving prominence to those that evoke the ‘good self’ and that tell us things about ourselves that we need to hear in order to keep ourselves from falling apart” (Gallagher, 2006, p. 65). “Jung, philosopher, describes the room that was his study, how he filled the stone walls with paintings that he made each day directly on the stones (mandalas, dream images, preoccupations) and he tells us that the room came gradually to be a living thing to him – the outward counterpart to his unconscious” (Alexander, 1977, p. 1166).

“The colors we choose, the objects we select, the pictures and posters we put on the walls- all of these have aesthetic or functional meanings of which we are aware. Many of them also are projections, or “messages” from the unconscious, in just the same way that our dreams contain such messages. As with dreams, we can live our lives ignoring them. But if we care about personal and spiritual growth, becoming who we truly are, the messages implicit in the dwelling-its form, location, decoration, state of order- and our feelings about those messages can be rich sources of insight” (Marcus, 1995, p. 52)

#### Maslow’s Hierarchy of Needs



Figure 1. Maslow’s hierarchy of needs (Huitt, 2007)

The previous discussion leading to the definition of *placeness*, addresses the deep effect and lasting reaction that a place may have on a person: a space almost becoming a part

of a person's identity and perspective. Due to this innate interaction, the association to our fundamental needs seems appropriate. If environmental psychology is time and again proving an essential physical, mental, and emotional communication between ourselves and our environment, then the association to an established hierarchy of needs is not such a leap. Gunter (2000) references the significance and meaning of home and its ultimate relationship to Maslow's hierarchy of needs. In relation to environmental psychology and home being the setting for meeting basic human needs, the idea of home is closely related to defining aspects of our personal identity and being (Gunter, 2000). A more fundamental connection to our environment is further stated by Belk (1992), "to be attached to certain of our surroundings is to make them a part of our extended self and that the extended self is involved only when the basis for attachment is emotional rather than simply functional" (Bonnes, Lee, & Bonaiuto, 2003, p. 551). "If lower needs are satisfied, the higher needs will tend to emerge, regardless of culture or individual personality" (Leff, 1978, p. 44).

According to Maslow (2013), human needs arrange themselves in hierarchies of priority where the appearance of one need usually depends on the prior satisfaction of lower needs. Furthermore, no need or drive can be treated as if it were isolated or discrete, meaning every drive is related to the satisfaction or dissatisfaction of other drives essentially creating a hierarchical pyramid.

"The environment affects us: it affects what we think, feel, and do, but, at the same time, we actively influence the environment in the process of using it to satisfy our needs" (Miller & Schlitt, 1985, p. 1). All of these needs are inherent in human nature. "The higher needs are hypothesized to be less imperious or subjectively urgent but to provide more profound happiness when gratified than the lower needs" (Leff, 1978, p. 44).

Maslow (2013) defines hierarchy of prepotency as the goal of highest priority monopolizing consciousness and capabilities, and therefore dominating the conscious life. When a need is fairly well satisfied, the next priority (higher) need emerges, since gratified needs are not active motivators the least priority needs are minimized, even forgotten or denied,

Below are Maslow's hierarchical levels, defined by Huitt (2007):

- **Physiological Needs**

Our physiological needs are defined as food, drink, oxygen, temperature regulation, elimination, rest, activity, and sex. These elements depict are basic human needs.

- **Safety Needs**

Our safety needs are defined as our need for protection from potentially dangerous objects or situations. This threat is defined as both physical and psychological, which captures the importance of routine and familiarity. This safety need could be related to dominance over our environment. According to Maslow, safety needs also include stability (Leff, 1978).

- **Belonging and Love Needs**

Our belonging and love need is about affection, trust and acceptance. This is an affiliation with and being part of a group.

- **Esteem Needs**

Our esteem needs speak to the respect of others and our self-esteem and self-respect. Satisfaction of the self-esteem need leads to feelings of self-confidence, worth, strength, capability, and adequacy of being useful and necessary in the world (Maslow, 2013).

- **Need to Know and Understand**

Our need to know and understand is on our cognitive level relating to our curiosity, exploration, and need for meaning and predictability. This cognitive level could relate to an arousal state.

- **Aesthetic Needs**

The aesthetic needs relates to the beauty in our surroundings, along with the evoked pleasure and sensory engagement. This level depends on the definitions of beauty and aesthetics. Maslow (1971) defines beauty with certain characteristics: form, simplicity, wholeness, completion, uniqueness, and perfection.

- **Self-Actualization**

Self-actualization is in regards to realizing your full potential and becoming everything one is capable of becoming. The desire for self-fulfillment, the tendency for a person to become actualized in what they are potentially (Maslow, 2013).

- **Transcendence**

Transcendence addresses your highest, holistic human consciousness and an experience or existence beyond the norm. Transcendence refers to the very highest and most inclusive or holistic levels of human consciousness, behaving and relating, as ends rather than means, to one-self, to significant others, to human beings in general (holism in the sense of hierarchical integration is assumed of one's own credo, or system of values, or systems of beliefs) (Maslow, 1971).

#### Design Categories Related to Maslow's Hierarchy of Needs

Miller & Schlitt (1985) state how it is clear that "the satisfaction of these needs depends upon the nature and the quality of residential interior design" (p. 2).

"The home is the logical place for the enlightened intervention of interior designers because of the importance of this environment to the individual. All of the basic human needs are satisfied there, including individual ones (for example, self-esteem and autonomy) and social ones (for example, love and affection)" (Miller & Schlitt, 1985, p. 2).

"The combination of cognitive, emotional and psychological factors making up the identity of a place depends on the overall quality of the physical environment and on its specific characteristics, on the quality of the social features associated with this environment, but also on the individual's capacity to adapt to the environment, or to transform it" (Bonnes, Lee, & Bonaiuto, 2003, p. 551).

"Because it is my home, I should have the ability to make changes in it when appropriate so that I can feel like an effective human being (control). I would prefer not to be disturbed, seen, or heard when I'm doing something in private (privacy). I would like to feel free to express my uniqueness as a person



(identity). Certainly, I want to have a feeling of being safe and protected there (security). Things should be arranged in an orderly and organized fashion (order). My home should be interesting and stimulating; but, at the same time, it should also help me to relax (variety). I want my home to express my own definition of what is beautiful (aesthetics). When I'm there, I also want to experience a feeling of freedom of choice (choice). I would like my home to be a place where I can have satisfying relationships with guests, friends, and family members (sociability)" (Miller & Schlitt, 1985, p. 3)

The relationship between *placeness* and place attachment depends on our needs being met through our environment.

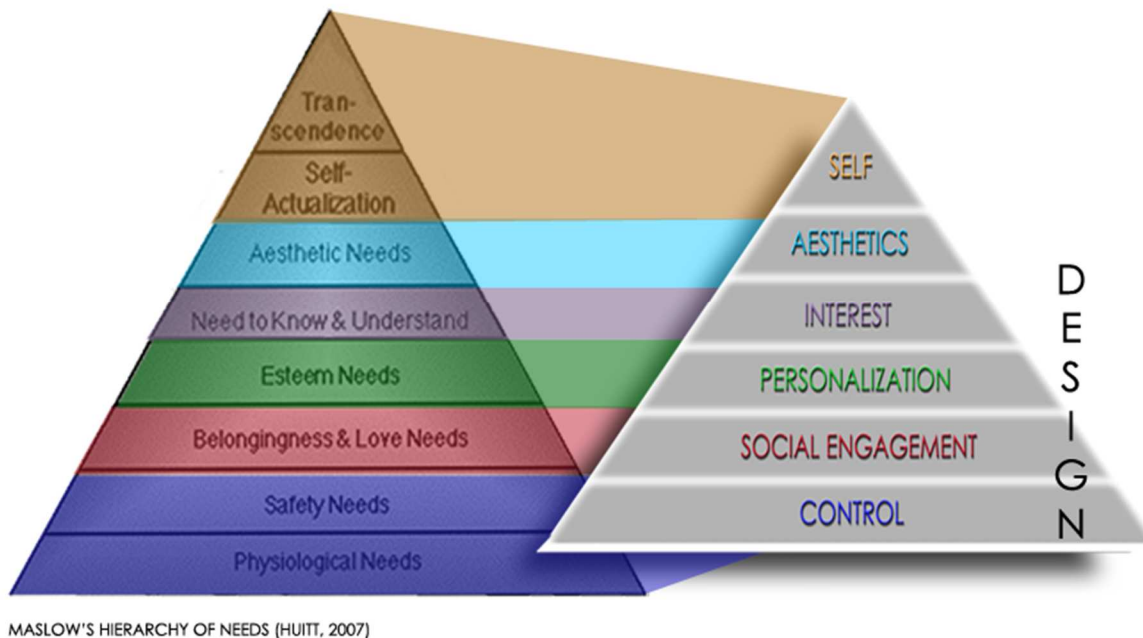


Figure 2. Proposed hierarchy of associating design categories with Maslow's level of needs

### Control

Miller and Schlitt (1985) choose to discuss control first, believing it is probably at the root of all other needs. "To appropriate space, to order and mold it into a form that pleases us and affirms who we are, is a universal need" (Marcus, 1995, p. 68). "The failure to exercise control in the home threatens our emotional well-being as a number of personally important needs go unsatisfied" (Miller & Schlitt, 1985, p. 2). In

relationship to our physiological and safety needs with our built environment, control of space is essential for our creation of place and the defined *placeness*. “Home is a ‘kind of space’ or ‘localizable idea’. ‘Home is located in space, but it is not necessarily a fixed space. Home starts by bringing some space under control” (Mallett, 2004, p. 79).

We must have a dominance over our intimate environments in order to have a consistent interaction and reflection of self. “For many people, their home may be the only place where they feel a sense of control” (Marcus, 1995, p. 67). “A common element in all cases is the understanding that the successful development of a household’s ‘home’ depends upon these features: each household must possess a clearly defined site for both a house and an outdoor space, and the household must own this site in the sense that they are in full control of its development” (Alexander, 1977, p. 395). According to R.W. White (1959), “satisfaction is derived from having an effect on the environment, changing it, and in general interacting with it successfully” (Miller & Schlitt, 1985, p. 8).

“When people are in their own territory, they can stay there as long as they want, do whatever they want to do, design and arrange it any way they want, decide who shall have access to it, and direct the behavior of others. In short, having our own space gives us the opportunity to exert control over both the physical and social environment, and experience a sense of mastery over our surroundings” (Miller & Schlitt, 1985, p. 9).

In reference to self, Marcus (1995) states, “the greater control we exercise over an object or an environment, the more closely allied with the self it becomes (p. 54). There is a very close relationship between the ability to manipulate the environment and feelings of personal competence” (Miller & Schlitt, 1985, p. 62). “People will only be able to feel comfortable in their houses, if they can change their houses to suit themselves” (Alexander, 1977, p. 394).

“Robert White (1959, 1960) noted that human beings derive satisfaction both from being stimulated in an interesting way and from manipulating elements of the environment. The overall tendency of such behavior is to yield higher levels of competence in dealing with the environment” (Leff, 1978, p. 34).

“One way in which most of us are aware of the almost membrane-like connection between self and environment is when things somehow get ‘out of control’ and we feel

disordered in ourselves” (Marcus, 1995, p. 67). We may not be able to control the architectural elements in our home, due to budget, resources, or time; but, we can more easily have an effect on the interior design.

Choice, comfort, and familiarity were recurring subheadings of control and our ability to manipulate our environments to suit our initial, primary needs. Choice is about having the freedom to make decisions regarding our environment. Comfort is about adapting this space to fit our preferences on several levels: physical, mental, and emotional. Familiarity refers to controlling our environment to meet our cognitive and emotional associations and reactions, but also having a physical familiarity to the way we control our spaces.

## **Choice**

“The design of a physical setting is one factor that affects the extent to which freedom of choice is achieved, where places themselves can be perceived as either limiting/constraining or free and open” (Miller & Schlitt, 1985, p. 130). Having a freedom of choice to manipulate our environment is integral to a feeling of ownership and purpose. Addressing the innate need choice satisfy our level of control of an environment, Miller & Schlitt (1985) state, “we react negatively when our thoughts, feelings, and actions are restricted, instead, we like to have behavioral options and feelings of freedom. Maintaining freedom of choice is an important human motive” (p. 130). Designers must design for adaptability, flexibility, and functional options in order to give the users freedom of choice. Especially if our homes are meeting the needs of several people in our inner circle, each with individual needs to be met by their environment. Certain rooms must be able to clarify and function differently for different people. “Flexible furnishings permit choice in, and control over, the type of social activity and the preferred interaction distance” (Miller & Schlitt, 1985, p. 157). “Harry Heft, environmental psychologist, gives a behavioral perspective regarding the great room’s potential for enforcing togetherness while permitting different individual activities – TV watching, chatting, e-mailing, cooking, studying – is the source of its

postmodern appeal, where flexibility is crucial and it's all about having choices and connection" (Gallagher, 2006, p. 123).

"Any physical setting that provides many alternatives for the satisfaction of a primary purpose and the satisfaction of related and unrelated subsidiary purposes obviously provides considerable freedom of choice. If a place is not designed for secondary purposes, people tend to use the setting in a purely functional manner – doing whatever is essential and then leaving as soon as possible, rather than engaging in the full range of behavior" (Miller & Schlitt, 1985, p. 136).

"In one sense, choice means having options and alternatives so that we can engage in a variety of behaviors of our own choosing, in the home" (Miller & Schlitt, 1985, p. 139). "The re-emergence of the open plan in the residential environment is due to today's informal style of living and reflects a preference and a need for freedom from barriers and other restrictions" (Miller & Schlitt, 1985, p. 142).

"Behavioral diversity, our first dimension of choice, deals with what people are able to do in the home, freedom is concerned more with feelings, perceptions, and attitudes. We like to feel free, open, comfortable, uninhibited, and unconstrained" (Miller & Schlitt, 1985, p. 139).

Miller & Schlitt (1985) also address how this freedom of choice, controls the stage and in turn the behaviors and actions in an environment.

"When occupying a clearly defined territory, the territory holder has the right of 'choice in behavior type'. This right lowers inhibitions for engaging in desired activities and makes it legitimate for the owner to modify the territory so that it suits a variety of behaviors. In contrast, there are restrictions placed upon the behavior of a visitor in another person's territory" (Miller & Schlitt, 1985, p. 132).

### ***Choice Design Application:***

(Gallagher, 2006); (Miller & Schlitt, 1985); & (Alexander, 1977)

- Design areas with primary and secondary purposes
  - Multi-functional areas
    - Bay window/window seat
      - Place to read or perch for people watching
  - Open-plan design
- Alternate interaction areas
  - Flexibility in furnishings
  - Ability to be adjusted and modified

- Ergonomics
- Territorial definition
  - Elevation changes
  - Color
  - Objects
  - Alcoves
- Control of lighting
  - Intensity control
    - Dimmer
    - Perimeter lighting
  - Directional control
    - Uplighting
    - Downlighting
    - Accent lighting
    - Task lighting
  - Locational control
  - Outcome control
    - Simulate various natural conditions (sunrise/sunset)
    - Vary patterns of light and shadow
    - Accent forms and textures

## **Comfort**

Tuan (1980) states, “in the phenomenological perspective, this experience is defined in terms very similar to the bond of attachment to place; being completely at home – that is, unreflectively secure and comfortable in a particular locality” (Bonnes, Lee, & Bonaiuto, 2003, p. 155). “We must rediscover for ourselves the mystery of comfort, for without it, our dwellings will indeed be machines instead of homes” (Rybczynski, 1987, p. 232).

“The combination of sensations, many of them subconscious, are not only physical, but also emotional and intellectual, making comfort difficult to explain and impossible to measure” (Rybczynski, 1987, p. 232). There is a necessity to develop a more concise and concrete understanding of what domestic comfort means (Rybczynski, 1987). “None of the purely visual factors was felt to be of major importance, indicating just how mistaken is the notion that comfort is solely a function of appearance or style” (Rybczynski, 1987, p. 128). Comfort as defined by Rybczynski (1987) is the:

- Subjective experience of satisfaction

- Condition in which discomfort has been avoided
- Latin root to strengthen or console
- Idea of contentment
- Antidote to the miseries of everyday life
- Feeling good, about human physiology

Comfort incorporates many transparent layers of meaning some of which are buried deeper than others. Comfort is both simple and complicated. One more simple attribute to comfort, is stated by Alexander (1977), “a room where you feel truly comfortable will always contain some kind of window place” (p. 834). However, on a more complicated level, the comfort requirements must meet a variety of people’s needs. “All guests do not share the life style of their hosts or hostesses, some consideration should be given in the design of social areas to making a variety of types of people comfortable there” (Alexander, 1977, p. 155). Designer Billy Baldwin states, “Lately I have been thinking how comfort is perhaps the ultimate luxury. I’m tired of contrived decoration. Comfort to me is a room that works for you and your guests” (Rybczynski, 1987, p. 217).

Rybczynski (1987) lists the following, together, contribute to the atmosphere of interior calm that is a part of comfort:

- Convenience (a handy table)
- Efficiency (a modulated light source)
- Leisure
- Pleasure
- Domesticity (a cup of tea)
- Physical ease (deep chairs and cushions)
- Privacy (reading a book, having a talk)
- Intimacy

### ***Comfort Design Application:***

(Alexander, 1977) & (Rybczynski, 1987)

- Intensity of lighting
  - Natural lighting at least on two sides of the room, if not three sides:
    - Bay window
    - Window seat
    - Low sill
    - Glazed alcove
    - Vertical windows rather than horizontal

- Warm Colors
  - Light that is part of the “warm” color triangle
    - Use a collection of colors, which together with the sources of light and the reflecting surfaces, combine to make the reflected light in the middle of the room warm (yellow-red)
- Intensity of noise
  - Sound absorbing elements
    - High-pile carpeting
    - Attractive fabric wall hangings
    - Window panels/shutters with fabric inserts
    - Ceiling tiles
    - Fully upholstered seating
- Size of room dimensions
  - Relative intimacy of different spaces can be felt
    - High ceilings in rooms which are public or meant for large gatherings
      - 10 to 12 feet
    - Lower ceilings in rooms for smaller gatherings
      - 7 to 9 feet
    - Very low ceilings in rooms or alcoves for one or two people
      - 6 to 7 feet
- Hardness and softness of sitting and lying furniture
  - Chairs that are a pleasure to sit in
    - Ergonomics
      - Ability to be adjusted and modified
    - Enduring rather than a passing novelty

## **Familiarity**

“The home place is full of ordinary objects. We know them through use; we do not attend to them as we do to works of art. They are almost a part of ourselves, too close to be seen” (Tuan, 1977, p. 144). Surrounded by items and forms that feel familiar, either through association to a past memory or actual artifacts, these “known” objects give us a feeling of *placeness* and ownership. We feel more secure and stable, both physically and emotionally when objects surround us. Objects that we know, that hold meaning, and that have associated memories.

“People attempt to preserve the past as a way of coping with future shock, transience and impermanence. The past provides us with anchors by representing what is familiar and secure in an uncertain world” (Miller & Schlitt, 1985, p. 74).

“Association with old things in general can add to our feelings of permanence and security” (Miller & Schlitt, 1985, p. 75). Or as Tuan (1977) states, “objects anchor time” (p. 187).

“The true heart of a house or apartment can be a nook or fireplace, porch or furniture arrangement that architect Donlyn Lyndon, calls the *aedicule*, which marks a place in the home that you care about, or that your life moves around, or where you put the stuff you like best. The *aedicule* sets up a counterpoint between the fluid, improvised, changeable aspect of domestic life and this that keeps saying ‘there’s something central that’s always here” (Gallagher, 2006, p. 45).

“Architectural and decorative styles become, for us, emotional souvenirs of the moments and settings in which we came across them” (De Botton, 2006, p. 94). Miller & Schlitt (1985) state, “This familiarity is the reason for desiring similar qualities of parents home” (p. 74). Or as Rybczynski (1987) puts it, “most people’s first choice would be to live in rooms that resemble, as much as their budgets permit, those of their grandparents” (p. 213). Possibly this familiarity takes on a personification that we begin to cherish. Our familiar objects reassure us, tell us where we have been and who we are. Familiarity speaks to who we are and the environments we prefer.

“It seems reasonable to suppose that people will possess some of the qualities of the buildings they are drawn to: to expect that if they are alive to the charm of an ancient farm house with walls made of irregular chiseled stones set in light mortar, if they can appreciate the play of candlelight against hand-decorated tiles, can be seduced by libraries with shelves filled from floor to ceiling with books that emit a sweet dusty smell and are content to lie on the floor tracing the knotted border of an intricate Turkoman rug, then they will know something about patience and stability, tenderness and sweetness, intelligence and worldliness, skepticism and trust. We expect that such enthusiasts will be committed to infusing their whole lives with the values embodied in the objects of their appreciation” (De Botton, 2006, p. 18).

Familiarity is important for both residence and visitors, making it essential to provide everyone opportunities to experience both control and choice (Miller & Schlitt, 1985). It is what we know, that gives our vulnerable selves a security in an ever-changing world. We also prefer a familiar aesthetic style, one that possesses a contextual fit. Therefore we know what to expect. We must create a familiarity not only inside our homes but also in areas beyond, such as the neighborhoods.



If houses are too uniform or modern for their setting, they are seen as an aesthetic assault. The meaning of the subtle differences within an accepted aesthetic is what is important in communicating the group identity, status, and other associational aspects of the environment while accepting the prevailing norms (Rapoport, 1982).

***Familiarity Design Application:***

(Miller & Schlitt, 1985)

- Incorporate elements from previously secure places into current home environments (create a sense of continuity with the client's personal history)
  - Color
  - Lighting
  - Furnishings
  - Layouts
- Lighting to emulate past references to "home"
  - Warmth, like fireplace/hearth
- Antiquarianism
  - Antiques
  - Cultural artifacts
  - Traditional design
- Permanence and stability, secure place and endurance
  - Big, heavy pieces of furniture
  - Sturdy building materials
  - Heavy wood frames on doors and windows
  - Wood floors

### Social Engagement

"The home is an important context for the satisfaction of social needs" (Miller & Schlitt, 1985, p. 145). "Home is a socio-spatial system, an interaction between place and social relationships" (Mallett, 2004, p. 68). "Identity of place is achieved by dramatizing the aspirations, needs, and functional rhythms of personal and group life" (Tuan, 1977, p. 178). "People's personal and familial experiences as well as significant social change, influence their perceived needs and desires, in relation to house design" (Mallett, 2004, p. 68).

"Home is the distinction between public and private, the inside and outside world" (Mallett, 2004, p. 71). "The home is optimally a microenvironment, from which you can survey the 'public' zone below and then savor the options of retreating, watching, or descending to take part in whatever is going on" (Gallagher, 2006, p. 4). "In

order for the spaces that we have spoken of to be successful, they must be designed with certain characteristics that create a friendly atmosphere, increase interaction, make it comfortable to be with others and foster group identity” (Miller & Schlitt, 1985, p. 146). Social situations influence behavior, but physical environments provide the cues (Rapoport, 1982).

“In a complex social fabric, human relations are inevitably subtle. It is essential that each person feels free to make connections or not, to move or not, to talk or not, to change the situation or not, according to his judgment. If the physical environment inhibits him and reduces his freedom of action, it will prevent him from doing the best he can to keep healing and improving the social situations he is in as he sees fit” (Alexander, 1977, p. 628).

Social engagement contains three subheadings: privacy, socialization, and interaction gradient. Privacy is about the necessity for your environment to allow you to disengage and recharge. We must have the ability to get away and have time to ourselves to do what we want. Socialization refers to the option to entertain and invite others into our home and meet their needs and our own, by being able to provide a comfortability on a physical, emotional, and mental level. The interaction gradient is the environment’s way of communicating to each other these areas of privacy and socialization.

## **Privacy**

“Privacy is a deep and basic need; and if the setting does not let each person and each small household regulate itself on this dimension, it is sure to cause trouble” (Alexander, 1977, p. 394). Privacy is “the selective control of access to the self or one’s group” states Irwin Altman, environmental psychologist (Gallagher, 2006, p. 128). “Hearth, shelter, home or home base are intimate places to human beings everywhere” (Tuan, 1977, p. 147).

“Harris, Brown and Werner (1996) relate home attachment to a central aspect of the territoriality model – namely the regulation of privacy. Attachment is described as ‘an individual psychological process, embedded within the home setting, developing over time, and involving affect, cognition, and behavior. Principal component analysis of the items adopted to measure attachment is

used to identify three interrelated forms of attachment, denoted as 'home experience', 'rootedness' and 'identity', all of which are related in different ways to privacy control" (Bonnes, Lee & Bonaiuto, 2003, p. 154).

"A solitude experience can be an occasion for obtaining self-knowledge and enhancing self-identity," Miller & Schlitt (1985, p. 60). "The availability of spatially separated areas from which to choose certainly enhances our ability to experience aloneness in a positive way" (Miller & Schlitt, 1985, p. 40). This reiterates the need for our environment to acknowledge and facilitate our need for privacy.

"Physically, the setting for a large voluntary family must provide for a balance of privacy and communality. Each small family, each person, each couple, needs a private realm, almost a private household of their own, according to their territorial need" (Alexander, 1977, p. 379).

"People need to have the ability to regulate social interaction so that they get the right amount of it to fit their changing privacy needs" (Miller & Schlitt, 1985, p. 45).

According to Mark Mack, architect, "there is an American ambivalence about privacy. No secrets, and no one will do anything wrong is a very American attitude and willingness to 'live in the open'" (Gallagher, 2006, p. 127).

"Reexamining bourgeois traditions means returning to house layouts that offer more privacy and intimacy than the so-called open plan. The space flows, but so does sight and sound – not since the Middle ages have homes offered as little personal privacy. Home users are on a large variety of home entertainment devices, cell phones, iPads, video games and computers. What is needed are many more small rooms – some need not be larger than alcoves – to conform to the range a variety of leisure activities in the modern home" (Rybczynski, 1987, p. 222).

### ***Privacy Design Application:***

(Miller & Schlitt, 1985) & (Alexander, 1977)

People seek privacy for the inside of their homes

- Visual barriers
  - Objects
  - Furniture
  - Screens/panels
  - Partitions
    - Built-ins
    - Walls
    - Alcoves

- L-shapes
  - Draperies
- Small, intimate spaces can be contained within large, open areas
  - Intimate lighting
  - Warm colors
  - Circular arrangements
  - Comfortable seating
- Sound absorbing elements
  - High-pile carpeting
  - Attractive fabric wall hangings
  - Window panels/shutters with fabric inserts
  - Ceiling tiles
  - Fully upholstered seating
- Balance between accessibility to others and inaccessibility from others (engage or not)
  - Avenues of visual escape
  - Common stimulus (attention directed toward the environment and away from people)
    - Aedicule
      - Fireplace
      - Indoor gardens
      - Murals
      - Paintings

## Socialization

“Home is the crucible of the social system representing a vital interface between society and the individual. It is invested with diverse cultural meanings that differ within and between households and across cultural and social settings” (Mallett, 2004, p. 68).

Home is defined fundamentally as a place to control our engagement or disengagement with society. This engagement gradient has several layers from the community at large, to our very own personal relationships with loved ones. “However strong or intimate these relationships are, it is undeniable that human events can in time build up a strong sentiment for place” (Tuan, 1977, p. 143). Home and *placeness* are fiercely related to relationships and a sense of community and belonging. Having both good and bad days and through possible strained relationships and character flaws, as Robert Frost wrote,

“home is the place where, when you go there, they have to take you in” (Gallagher, 2006, p. 15).

“We need a home in the psychological sense as much as we need one in the physical: to compensate for vulnerability. We need our rooms to align us to desirable versions of ourselves and to keep alive the important evanescent sides of us” (De Botton, 2006, p. 107).

“Private, often-familial realm clearly differentiated from public space and removed from public scrutiny and surveillance. A space that offers freedom and control, security and scope for creativity and regeneration is an intimate space that provides a context for close, caring relationships” (Mallett, 2004, p. 71).

*Placeness* is associated with these social interactions and choice of engagement. None of us are all or nothing from one day to the next, and our homes should nurture our ebbs and flows, adapting to our moods and development. Ideally, the places we live cater to our growth and progress, and support us when we falter. That balance also exists in celebrating life with friends and family, our home expanding to entertain and engulf our guests, in positive and inviting design.

“Various forms of personalization also set the stage for interaction. The display of personal information in social areas suggests a willingness on the part of the homeowner to share the self with others. This tactic puts other people at ease and stimulates an open, self-disclosing, sharing style of interaction” (Miller & Schlitt, 1985, p. 157).

The size of the room, its location, its furnishings all communicate identity and status, and through this they establish a context and define a situation that depicts certain appropriate behaviors (Rapoport, 1982).

“We can exercise some control over the nature of social interaction that occurs at social gatherings by being sensitive to the environmental messages that are sent to others from the way we choose to personalize social areas” (Miller & Schlitt, 1985, p. 157).

### ***Socialization Design Application:***

(Alexander, 1977) & (Miller & Schlitt, 1985)

- Territorial definition
  - Elevation changes
  - Color

- Objects
- Alcoves
- Round shapes are seen as connected
  - Platforms
  - Furnishing arrangements
  - Floor coverings
  - Color
  - Lighting
- Small, intimate spaces can be contained within large, open areas
  - About 6 feet wide, and between three and six feet deep
    - Intimate lighting
    - Warm colors
    - Circular arrangements
    - Comfortable seating
- Conversation piece
  - Windows and other viewing environments
    - Zen view
  - Artwork
  - Personal displays of family identity
  - Aedicule
  - Uniqueness
    - Rare, original, and unusual
      - Antiques, art objects, handmade furniture, and craft items
      - Novelty and meaningfulness
      - Personal significance
- Stimulating social areas
  - Lighting effects
    - Brightly lit
    - Stained glass
    - Crystal chandeliers
  - Pleasant odors
  - Natural views
  - Shimmering fabrics
  - Museum-like displays
  - Palatial entrances
  - High ceilings
  - Dramatic outdoor views
    - Framed with an arch or with lighting
  - Architectural details
- Asymmetry
  - Nature
  - Soft architectural elements
  - Different levels
  - Diagonal lines with masses of forms
  - Elements added to orderly, balanced rooms

- Off-center paintings
- Absence of furniture pairings
- Asymmetrical arrangements of collections

### **Interaction gradient**

“Our houses and apartments are the states on which much of the drama of daily life is enacted. Beginning with the very important entry, the home’s spaces are a series of sets that influence how we’ll play our parts. It only makes sense to ensure that our rooms cue the kinds of thoughts and feelings that help us to be happy and productive” (Gallagher, 2006, p. 27).

Entrance and layout can be designed to affect behavior. “Social distance, related to their relative intimacy or nonintimacy dictate the layout of a building, so that they create a sequence which begins with the entrance and the most public parts of the building, then leads into the slightly more private areas, and finally to the most private domains” (Alexander, 1977, p. 612).

“The intimacy gradient seems to exist in almost all cultures. We see it in widely different cultures – compare the plan of an African compound, a traditional Japanese house, and early American colonial homes. It is almost an archetypal ordering principle for all man’s buildings” (Alexander, 1977, p. 611).

Architect Bernard Maybeck states, “we should be compelled to enjoy the larger world while savoring the smaller private one, drawing you toward involvement and delight in your surroundings” (Gallagher, 2006, p. 4). “Boundaries of different interaction spaces should be clearly indicated so occupants are able to experience feelings of personal control” (Miller & Schlitt, 1985, p. 157). “Unless the spaces in a building are arranged in a sequence, which corresponds to their degrees of privacy, the visits made by strangers, friends, guests, clients, family, will always be a little awkward” (Alexander, 1977, p. 610). In reference to the already discussed, existing, research:

“What matters most is that the transition exists, and as actual physical place, between the outside and the inside, and that the view, and sounds, and light, and surface, which you walk on, change as you pass through this place. It is the physical changes – and above all the change of view – which creates the psychological transition in your mind” (Alexander, 1977, p. 552).

“However, in contemporary house design, incorporating open plan or flexible living spaces, increasingly challenges simplistic notions of home as a private haven or

refuge versus work and the outside world” (Mallett, 2004, p. 72). “In a building which has its rooms so interlaced that there is no clearly defined gradient of intimacy, it is not possible to choose the spot for any particular encounter so carefully; and it is therefore impossible to give the encounter this dimension of added meaning by the choice of space” (Alexander, 1977, p. 611). However, there must be some way in which the members of the family can be together, even when they are doing different things. “People want to be together; but at the same time they want the opportunity for some small amount of privacy, without giving up community” (Alexander, 1977, p. 831).

***Interaction Gradient Design Application:***

(Alexander, 1977)

Definite transition areas

- Indoor of entrance
  - Overall shape of the entrance room and its construction
    - Begin with the shape of the indoor space
  - Make the entrance room the most formal and public place
    - Make the room part of the sequence of sitting spaces
      - Like a hall or sitting room
      - Put in built-in seats
    - Make sure it is filled with light
      - Two or three sides of light
      - Window place
    - Provide a waist-high shelf
    - Partial boundaries
- Common areas are to the front
  - Heart and soul of the activity
  - All paths between more private rooms pass tangent to the common ones
    - Passages
      - Broad
      - Sunlit
      - Seats in them
      - Views into gardens
      - Continuous with the room themselves
      - Furnish them like rooms
        - Carpets
        - Bookshelves
        - Easy chairs and tables
        - Filtered light
    - Staircase as a stage
    - Plenty of light in them
      - Tapestry of light and dark



- A view
- Ceiling height variation
  - Between rooms, which open into each other
  - Relative intimacy of different spaces can be felt
    - High ceilings in rooms which are public or meant for large gatherings
      - 10 to 12 feet
    - Lower ceilings in rooms for smaller gatherings
      - 7 to 9 feet
    - Very low ceilings in rooms or alcoves for one or two people
      - 6 to 7 feet
- Make small places at the edge of any common room
  - Alcoves
    - No more than 6 feet wide and 3 to 6 feet deep
    - Large enough for two people to sit, chat, or play
    - Large enough to contain a desk or a table
    - A lower ceiling than the ceiling height in the main room
      - 6 to 7 feet
- The subtleties of saying goodbye
  - Clearly defined entrance area
    - At least 20 square feet
    - Outside the front door
    - Raised with a natural threshold
      - Railing
      - Low wall
      - Step

### Personalization

Preference for detached houses over renting, townhouses, or high-rise apartments is frequently related to the degree or lack of outside control over personalization (Rapoport, 1982). Rapoport (1982) further states the meaning of many environments is defined through personalization, taking possession, completing it, changing it.

Personalization includes three subheadings: reflection, projection, and identity. Reflection is about remembering who you are and reminds you of a past self through the personal objects chosen in your environment. Projection refers to what you want to communicate through your environment, regarding yourself or the self you hope to be. Finally, identity is in reference to the self you are actually portraying and how your environment is bouncing this message back to you.

## Reflection

“Home can be an expression of one’s identity and sense of self through physical space that is lived, resulting in a space that is an ‘expression of social meanings and identities’” (Mallett, 2004, p. 84). “We all consciously look for nonverbal clues in buildings, landscapes, and interiors, for we know that these clues have something to say about the status, prestige, and other values of those who own them” (Becker, 1977, p. 1). “Our home and its contents are very potent statements about who we are, representing symbols of our ego-selves” (Marcus, 1995, p. 12).

“We may react strongly to a painting, a piece of sculpture, an awe-inspiring view. Other objects or themes may have a deep emotional meaning for us because of their association with our personal past” (Miller & Schlitt, 1985, p. 104).

“This is behavior-oriented as the place where family defines and displays for themselves and others; who they are, where they came from and what they value” (Gallagher, 2006, p. 49). “People consciously and unconsciously use their home environment to express something about themselves” (Marcus, 1995, p. 9). Group identity is established through presentation of self by reference to meaning. Meaning is not separate from function but is itself a most important aspect of function. (Rapoport, 1982). Tuan (1977) further explains the intertwining of place and self, to strengthen our sense of self, the past needs to be rescued and made accessible. This concept also applies to development, growth, and reflection of a self that yearns for positive growth and achievement through our stages in life.

“People look back for various reasons, but shared by all is the need to acquire a sense of self and of identity. I am more than what the thin present defines” (Tuan, 1977, p. 187).

“Here is a seeming paradox: thought creates distance and destroys the immediacy of direct experience, yet it is by thoughtful reflection that the elusive moments of the past draw near to us in present reality and gain a measure of permanence” (Tuan, 1977, p. 148).

***Reflection Design Application:***

(Miller & Schlitt, 1985)

- Association with the past
  - Furnish to reflect the client's personal history
    - Heirlooms and collected items
      - Furnishings
      - Photographs
      - Mementos
  - Personalize to reflect past satisfying times and experiences
    - Events
    - People
    - Places
- Clients' heritage
  - Colors
  - Fabrics
  - Layouts
- Period preferences
  - Historical references
  - Period pieces

**Projection**

“By personalizing the space, home becomes an external picture of the self – something tangible that we can look at and touch in order to define who we are” (Miller & Schlitt, 1985, p. 54). “Therefore, the living room is essentially a 3-dimensional representation of our identity” (Gallagher, 2006, p. 57).

“Where we live becomes a kind of stage set onto which our self-image is projected via moveable objects. The house interior for most people – unlike the structure itself- is rarely wholly fixed or finished. Like the exploration of the self, the arrangement of the domestic interior is often in the process of becoming” (Marcus, 1995, p. 59).

“Areas of the home can be designed in order to represent the type of person one wishes to become” (Miller & Schlitt, 1985, p. 59). “Personalization also tends to structure interaction by suggesting appropriate topics of conversation, informing people of proper forms of behavior, and creating certain moods” (Miller & Schlitt, 1985, p. 157).

As addressed in the social gradient section:

“The living room reflects the individual's conscious and unconscious attempts to express a social identity. It is the designer's role to understand the type of

impression that the client wishes to present to others and facilitate its expression – but not in a superficial way that interferes with the fulfillment of other needs” (Miller & Schlitt, 1985, p. 161).

“In modern times people have begun to look outward, to others, and over their shoulders, at the people who are coming to visit them, and have replaced their natural instinctive decorations with the things which they believe will please and impress their visitors” (Alexander, 1977, p. 1165). Alexander (1977) also states, “décor and the conception of interior design have spread so widely, that very often people forget their instinct for the things they really want to keep around them” (p. 1165). “However, it is far more fascinating to come into a room which is the living expression of a person, or a group of people, so that you can see their lives, their histories, their inclinations, displayed in manifest form around the walls, in the furniture, on the shelves” (Alexander, 1977, p. 1165).

“Do not be tricked into believing that modern décor must be slick or psychedelic, or ‘natural’ or ‘modern art’, or ‘plants’ or anything else that current tastemakers claim. It is most beautiful when it comes straight from your life – the things you care for, the things that tell your story” (Alexander, 1977, p. 1166).

“Unless we stop and consciously reflect upon it, most of us are scarcely aware of how much our homes, as well as being functional settings for daily life, are containers for collections of memorabilia. Objects, pictures, furniture, posters, and ornaments – all remind us of significant people, places, phases, experiences, and values in our lives. As G. McCracken explains: ‘Surrounded by our things, we are constantly instructed in who we are and what we aspire to. Surrounded by our things, we are rooted in and visually continuous with our pasts. Surrounded by our things, we are sheltered from the many forces that would deflect us into new concepts, practices, and experiences. Things are our ballast’” (Marcus, 1995, p. 74).

“People’s experience of home influences the meaning and significance of their journeys beyond it” (Mallett, 2004, p. 78). Home is less about ‘where you are from’ and ‘more about where you are going.’ On a more fundamental level, Mallett (2004) states, “home searching is a basic trait of human nature” (p. 77).

“We require places where the values outside of us encourage and enforce the aspirations within us. We need panels of gold and lapis, windows of colored

glass and gardens of immaculately raked gravel in order to stay true to the sincerest parts of ourselves” (De Botton, 2006, p. 108).

***Projection Design Application:***

(Miller & Schlitt, 1985) & (Rengel, 2007)

Objects that explain future goals, aspirations, and dreams

- Related to interpretation of self-image
  - Expected social self-image (how you expect to see yourself in the future)
  - Ideal social self-image (how you would like others to see you)
  - Social self-image (how you feel others see you)
  - Ideal self-image (how you would like to see yourself)
  - Actual self-image
- Related to life-style motive
  - Affiliation motive (a space for intimate and meaningful relationships, a welcoming and friendly space to connect with others)
  - Achievement motive (space for my important and expensive possessions, to show my achievements and status)
  - Power motive (space I can be in control and influence the situation)
  - Self-esteem motive (a space where I can express myself in a proud and positive way)
  - Uniqueness/novelty motive (a space that sets me apart from others in a unique way)

**Identity**

“Connection between the individual’s personality and meaningful places from the past in creating a just-right home, that is not magazine perfection, but deep, gut-level feeling of identification and comfort” (Gallagher, 2006, p. 52). In 1890, in an early discussion of the concept of self, William James remarked: “It is clear that between what a man calls me and what he simply calls mine the line is difficult to draw. We feel and act about certain things that are ours very much as we feel and act about ourselves” (Marcus, 1995, p. 72). “The home and other important settings, in which we have significant emotional experiences, help activate the personality’s different selves and states” (Gallagher, 2006, p. 11). “Home helps knit up our changing selves into a coherent identity, connect our past to our present and future” (Gallagher, 2006, p. xix).

“When a house or possessions are perceived as being inconsistent with our current self-image, we tend to neglect them or willingly dispose of them. When our self-image is confused or going through some kind of transition, we may hold

on to the 'things' in our lives, being unsure as to which ones truly represent us. As we begin to recover from loss, or establish our first home, or explore a new facet of who we are, physical changes or purchase of material objects may symbolize and anchor those changes" (Marcus, 1995, p. 64).

"The house and special objects within it come to be viewed as a profound expression of the inner self; through touch, care, and manipulation, energy seems to move from the self to the objective symbol of self. But those objects can also be viewed as a revelation of the inner self; that is, the energy seems to move from objective symbol back the self, as if to say: Look! This is who you are" (Marcus, 1995, p. 66).

"The interior of the home represents the private interior of the person – what a person really is as opposed to one's façade or public image" (Miller & Schlitt, 1985, p. 53).

"People have a tendency to identify with their surroundings. In this process of identification, attachments are formed to places. These places come to have very special meanings to people and comprise an important part of the complex structure of self-identity" (Miller & Schlitt, 1985, p. 47).

"Although displays primarily satisfy identity and aesthetic needs, the personalization of social areas also facilitates sociability" (Alexander, 1977, p. 156). "Manage our experiences by exploiting the links between where we are and the *me* we need to be there" (Gallagher, 2006, p. 12).

"Habit is the enormous flywheel of society; usually behave like customers at the mall, passengers at the airport, and students in the classroom creating the person-environment dynamic of a behavior setting. Person and his or her environment aren't separate entities but form an interdependent behavior setting – offers important insight into daily life. Does this room or patio help me to be the right self at the right time" (Gallagher, 2006, p. 33)?

"Our very identity and discrete 'self' is confirmed by the objects we use and surround ourselves with. The objects with which we surround ourselves, in that most familiar and stable environment – the home – are particularly salient expression of self" (Marcus, 1995, p. 63).

In 1978, Proshansky, states 'place – identity' is conceptualized as a unique part of self-identity, "those dimensions of self that define the individual's personal identity in relation to the physical environment by means of a complex pattern of conscious and unconscious ideas, beliefs, preferences, feelings, values, goals, and behavioral

tendencies and skills relevant to this environment” (Bonnes, Lee, & Bonaiuto, 2003, p. 214).

***Identity Design Application:***

(Miller & Schlitt, 1985)

- Current definitions of self
  - Interests
  - Activities
  - Values
- Represent certain milestones of life
  - Collect and display items that reflect the identity
    - Objects
    - Symbols
    - Furniture styles
    - Colors
    - Patterns
- Current beliefs and values (social, political, economic, or philosophical sense)
  - Sayings
  - Thoughts
  - Proverbs
- Imperfection (“wabi-sabi”)
  - Easier to identify with furnishings that look and feel as if they have been made by a person
    - Handmade, hand-carved furniture
      - Rough edges
      - Minor irregularities
      - Incompleteness

## Interest

“Place is whatever stable object catches our attention. As we look at a panoramic scene our eyes pause at points of interest. Each pause is time enough to create an image of place that looms large momentarily in our view” (Tuan, 1977, p. 161).

“Interest speaks to a cognitive space relationship or a need to know and understand a place. We must be able to make sense of our environment in order to adapt to it successfully” (Miller & Schlitt, 1985, p. 81).

“There is an innate appeal of ‘complex order.’ We’re bored by overly homogeneous places, such as cookie-cutter housing tracts. On the other hand,

we're uneasy in a slapped – together shantytown, with its differently skewed ratio of spontaneity to design. We feel best in places that balance variety and stability" (Gallagher, 2006, p. 8).

Interest includes three subcategories: variety, order, and nature. Variety is needed to break the monotony and engage ourselves in a stimulating environment. Order is necessary to recognize our place and associate past environmental experiences. Nature is vital as a proven preference cognitively, whether it be an innate reference to our primal selves or the connection to something more. These categories speak to the cognitive engagement, which is necessary for us to maintain our interest. Variety and complexity are important factors in understanding order (Rengel, 2007).

## **Variety**

Although people demand a certain degree of clarity in the environment, cognitively, a sense of variety is necessary on many levels. This variety is closely related to stimulus and environmental engagement of our senses. For example, "a room that appeals to different sensory modalities is much more involving than one that provides only visual experiences" (Miller & Schlitt, 1985, p. 104). Complexity is the visual exploration of contents and relationships, while mystery entices you to experience (Rengel, 2007). Therefore, variety can be viewed as mystery that provides interest. Daniel Berlyne was an early researcher regarding motivation and need satisfaction. Through his findings, Berlyne established one's level of arousal was increased through ambiguity, complexity, novelty, and surprise. Berlyne also found pleasurable effects and aesthetics were related to creating a balance between order and variety, simplicity and complexity (Rengel, 2007). This displays the necessity for designers to provide a variety of areas of function to fit several users' needs. Preferences for certain variety and arousal levels may vary with each individual and personality. A balance is achieved by providing a certain amount of familiarity, comfort, and control, yet variety allows us to yearn for more; essentially a sense of comfortable discovery, allowing cognitive stimulation. "People generally prefer environments with



intermediate degrees of stimulation, places that provide some diversity but not so much as to confuse, bewilder, and disorient” (Miller & Schlitt, 1985, p. 100). Miller & Schlitt (1985) suggest solutions for intermediate stimuli: “create separate high stimulation and low stimulation areas or create flexible spaces in which the overall level of arousal can be easily altered” (p. 99).

“When there is too much patterning, regularity, and redundancy, we tend to get bored and uninvolved. Certainly we want the home environment to be a predictable one, so that needs for order and security are satisfied. But if homes are designed with some degree of surprise, unexpectedness, and uncertainty, we can serve the need for stimulation as well” (Miller & Schlitt, 1985, p. 105).

We crave for spaces that fit our needs depending on the day. “The area could be large at first impression; however little oases or pockets of comfort would beckon around corners” (Miller & Schlitt, 1985, p. 151). “This may include stimulus shelters that provide different kinds of privacy such as a nook or an alcove” (Gallagher, 1993, p. 612). “These varying areas of use allow for public or private, formal or informal, function over form” (Gallagher, 2006, p. 25).

“Some people feel comfortable when they are aroused, activated, stimulated, and excited; a relatively high state of arousal is natural for them. Others feel more comfortable in a low arousal state, when there is less internal and external stimulation present. However, we have all experienced occasions when we are understimulated and consequently, have a need for variety, novelty, and change. And, at other times, we may be overstimulated so that we prefer conditions of sameness, calm and quiet” (Miller & Schlitt, 1985, p. 98).

Our past and associated meanings may play a part on the variety levels we find comfortable and familiar. “We may become adapted to a home environment that has provided a variety of choices in the past and come to desire such a place in the future” (Miller & Schlitt, 1985, p. 131). “Variety can also be about the balance between the old and the new, the natural and the man-made, the luxurious and the modest, and the masculine and the feminine” (De Botton, 2006, p. 195). This concept could be applied to materials, functionality of rooms, sociability and privacy, elegance and simplicity. All of these combine to add depth, character, and personality to a space.

Frank Lloyd Wright was a master at offering this variety. Introverts and extroverts have very different needs for familiarity and novelty. Frank Lloyd Wright

referred to them as “nesters” and “perchers” or in other words outward-looking, thrill-seeking boldness vs. inward-looking, sensitive mature. “By offering features of prospect, or a big, bright space gives a broad, interesting view, and by providing refuge, or a snug protected haven allows for choice and variety” (Gallagher, 2006, p. 6). “Depending on a person’s preferences, they function best in different types of places” (Gallagher, 2006, p. 62).

Besides addressing innate personality traits or possibly even innate needs, the variety in options is needed to fit a person’s mood, define privacy or offer certain functions. Keeping these variables mindful in design, is essential to create an enjoyable space. For example, Alexander (1977) states “a building in which the ceiling heights are all the same is virtually incapable of making people comfortable” (p. 877). For example:

“By lowering the ceiling around the hearth, creates the cozy, cave like refuge from which to survey the living area’s loftier, brighter, open prospect. Having the option of occupying either is a simple design feature that makes a house or apartment feel like home” (Gallagher, 2006 p. 6).

Variety in lighting is another extremely important factor in space engagement and establishing *placeness*. Nature views, daylighting and light all are huge factors when it comes to offering variety in a space. Nature and variety have been linked due to our fundamental need to change our stimulus and focus on natural elements, such as through a window view. “Rooms without a view are prisons for the people who have to stay in them” (Alexander, 1977, p. 890). Windows overlooking life help provide a bigger picture and an escape from the details of life inside. “When people are in a place for any length of time they need to be able to refresh themselves by looking at a world different from the one they are in, and with enough of its own variety and life to provide refreshment” (Alexander, 1977, p. 890).

“In a building with uniform light level, there are few ‘places’ which function as effective settings for human events. This happens because, to a large extent the places, which make effective settings, are defined by light” (Alexander, 1977, p. 645).

Light must lead a person through a room with varying degrees of illumination and interest. Lighting is about filling the volume of the space and accenting areas of task,

highlighting architectural details or artwork and guiding function. Once again, setting the stage.

“This tapestry of light and dark must fit together with the flow of movement. People naturally tend to walk toward the light. It is therefore obvious that any entrance, or any key point in a circulation system, must be systematically lighter than its surroundings – with light flooded there, so that its intensity becomes a natural target. If the places where the light falls are not the places you are meant to go toward, or if the light is uniform the environment is giving information which contradicts its own meaning” (Alexander, 1977, p. 645).

This variety through personal objects creates the personal connection and intriguing variety for guests. Personalization of a space is referenced above but plays an important part in variety and interest, also. “Design should encourage both change and evolution, and invite the person to participate in these processes, making the home unique” (Miller & Schlitt, 1985, p. 103). This distinct participation in manipulation environment allows for place attachment, referencing above to control and personalization. “Our designs should contain a certain amount of incompleteness, so that people are encouraged to fill in the gaps and project their own personalities in to the space” (Miller & Schlitt, 1985, p. 21).

***Variety Design Application:***

(Alexander, 1977) & (Miller & Schlitt, 1985)

- Variety of Views
  - Small panes
  - Low sill
  - Soft light
- Elevation variety
  - Define thresholds/privacy gradients/areas for function
    - Vary ceiling heights
    - Changes in floor levels
- Flexible and interchangeable arrangements
  - Paintings
  - Photographs
  - Wall-hung objects
  - Furnishings
    - Increased density
    - Adjustability
    - Portability
    - Multifunctionality

- Lighting variety
  - Intensity control
    - Dimmer
    - Perimeter lighting
  - Directional control
    - Uplighting
    - Downlighting
    - Accent lighting
    - Task lighting
  - Locational control
  - Outcome control
    - Simulate various natural conditions (sunrise/sunset)
    - Vary patterns of light and shadow
    - Accent forms and textures
  - Lighting techniques for vertical surfaces
    - Wall washing
    - Grazing
    - Downlighting
    - Projections
  - Complex lighting is preferred for light and shadow effects
    - Ambient light combined with decorative and task lighting
      - Blinds/shades to manipulate light
- Variety in sound absorption
  - Soft porous materials (absorb)
    - Upholstered furniture
    - Thick carpeting
  - Hard dense surfaces (reflect)
    - Walls
    - Mirrors
    - Hard floors
- Shape variety
  - L-shapes
  - Alcoves
- Color variety
  - If monochromatic, choose a variable value
    - Red, blue, green, or violet

## Order

“This age of affluence and technological achievement is also an age of anxiety and despair. Traditional social and religious values have eroded to the point where life often seems to have lost its meaning. Why isn’t the harmony that is apparent in natural forms a more powerful force in our social forms? Perhaps it is because, in our fascination with our powers of invention and achievement, we

have lost sight of the power of limits. Yet now we are forced to confront the limits of the earth's resources, and the need to limit over-population, big government, big business, and big labor. In all realms of our experience, we are finding the need to rediscover proper proportions. The proportions of nature, art, and architecture can help us in the effort, for these proportions are shared limitations that create harmonious relationships out of differences. Thus they teach us that limitations are not just restrictive, but they also are creative" (Doczi, 1981, preface).

"Order contributes to the appeal of almost all substantial works of architecture" (De Botton, 2006, p. 178). "We prefer places that are high in order, structure, and coherence" (Miller & Schlitt, 1985, p. 81).

"The need for order is one of the most basic human needs, especially in unfamiliar environments. A sense of correctness and confidence comes with order. Proper order provides points of reference to help people feel oriented and have a sense of where they are" (Rengel, 2007, p. 13).

However, this is not proposing that great design can be constrained and contrived in a systematic grid or formula that etches out all creativity, inspiration and contextual personalization. "Nor does it mean new architecture is to be invented fresh every time we build" (De Botton, 2006, p. 182).

"Hildebrand is not interested in more homes the like of which have never been seen, but in dwellings that, informed by a few design principles, 'serve ordinary human actions and emotions.' My approach is dedicated to this other dimension of architecture, which concerns not how we differ from each other but how we are alike" (Gallagher, 2006, p. 9).

"We need the discipline offered by similarity, since we require that our environments act as guardians of a calmness and direction on which we have a precarious hold" (De Botton, 2006, p. 183).

"The purpose of geometry of design is not to quantify aesthetics through geometry but rather to reveal visual relationships that have foundations in the essential qualities of life such as proportion and growth patterns as well as mathematics. Its purpose is to lend insight into the design process and give visual coherence to design through visual structure" (Elam, 2001, p. 5).

"There exists a cross-cultural archetypal aesthetic preference for golden section proportions" (Elam, 2001, p. 7). "While this analysis does not examine the concept, the

culture, or the medium, it does reveal compositional principles and often confirms the positive intuitive response of the viewer through quantifiable means of proportion and alignment” (Elam, 2001, p. 45).

“The idea of proposing a formula that speaks to our primal needs in shelter, that captures our innate needs psychologically. This refers to a magical ratio of frame to glass and foot to body” (De Botton, 2006, p. 210).

“Visual harmony produces a sense of order too. Order is also sometimes associated with situations that have good correspondence between needs and responses” (Rengel, 2007, p. 13).

“Within the context of the man-made environment and the natural world there is a documented human cognitive preference for golden section proportions throughout recorded history; the golden section rectangle, with a proportion of 1:1.618” (Elam, 2001, p. 6).

“Natural and man-made creations, we find a unity and an order common to all of them. Similarly dynamic way all things grow or are made – by a union of complementary opposites. Living patterns of the flower mirror truths relevant to all forms of life” (Doczi, 1981, p. 1).

“The power of the golden section to create harmony arises from its unique capacity to unite different parts of a whole so that each preserves its own identity, and yet blends into the greater pattern of a single whole” (Elam, 2001, p. 8). Classical proportions incline us to feel easy and secure. “Andrea Palladio’s *The Four Books of Architecture* (1570), perhaps the West’s most influential attempt systematically to unravel the secrets of successful buildings, insisted that rooms should be at least as high as they were broad, that the correct ratios between the lengths and the sides of rooms were 1:1, 2:3, 3:4 and the hall should be placed on a central axis, in absolute symmetry to both wings of a house” (De Botton, 2006, p. 172). “According to Le Corbusier, the understanding of the underlying organizational principles of geometry brings to a creative work a sense of compositional cohesiveness, whereby each element of the work has a visual sense of belonging” (Elam, 2001, p. 43).

“Logical, well-structured sequences, clear intersections and groupings, distinctive parts, and the use of a hierarchical design approach are the kinds of

attributes that contribute to a project's sense of order. People seem to have a sense of where they are in relationship to the whole" (Rengel, 2007, p. 13).

"Simplicity could be synthesized with nobility and refinement" (De Botton, 2006, p. 201). "We admire starkly simple works that we intuitively realize that, without immense effort, would have appeared very complicated" (De Botton, 2006, p. 209).

"Key ideas of composition that guide design, and the arrangement of elements within a composition provide insight into the decisions that were made. Essential in cohesive compositions, these lines can reveal alignments between elements, organizational principles, and visual directions, yet there are no strict rules" (Elam, 2001, p. 45).

However, no formula works comprehensively. As discussed earlier, contextual fit, historical relevance and associated meaning are innately necessary elements.

"The perfectly crystalline squares and rectangles of ultramodern architecture make no special sense in human or in structural terms. They only express the rigid desires and fantasies which people have when they get too preoccupied with systems and the means of their production" (Alexander, 1977, p. 883).

"A culture whose preferences run instead towards Palladian villas where we have extinguished our own curiosity and repressed our true passions, in order not to seem peculiar, diminish our love of daffodils, Wordsworth, and snow-viewing" (De Botton, 2006, p. 262). In other words, there must still exist a human factor.

"There are limits to order, leading to monotony. As Novalis advised: 'In a work of art, chaos must shimmer through the veil of order'" (De Botton, 2006, p. 186).

### ***Order Design Application:***

(Alexander, 1977)

- Room proportions
  - Ceiling height should be related to the length and breadth of the room
    - Palladio
    - Traditional Japanese architecture
- Distinct figure – ground contrast
  - Figure
    - Furniture
    - Art display area
    - Window treatments
    - Paintings
    - Distinct patterns/bright colors

- Background
  - Floor
  - Walls
- Spatial separation: “law of proximity”
  - Groupings are emphasized
- Continuity: “law of similarity”
  - Unity
- Clarity
  - No novelty
  - Organic, real materials
- Balance
  - Symmetry, especially colors and forms
  - Horizontal and vertical lines predominate
  - Formal, traditional arrangements
  - Balance of opposites
    - Warm/cool
    - Large/small objects
    - Controlled variety
      - Repetition of lines and forms
- Organization
  - Storage
    - Closets
    - Built ins

## Nature

“Until a hundred years or so ago, the connection between our inner and outer worlds was considered obvious. Ancient societies that lived intimately with nature developed ways to be in the right place at the right time. Tribal groups knew where to go when seeking healing or insight. Practitioners of feng shui, or the Chinese art of geomancy, corrected imbalances in a place’s chi- the universe’s ubiquitous energy. Doctors, including Hippocrates, often prescribed changes of scene to restore their patients’ well being” (Gallagher, 2006, p. xvi).

Hippocrates stated, “The outside of a home is good for the inside of a person,” (Gallagher, 2006, p. 228). “Exposure to nature is therapeutic, representing a return to our evolutionary home” (Alexander, 1977, p. 148). “For most of the 20<sup>th</sup> century, however, both psychotherapy, which stresses the individual’s experience, and psychopharmacology, which focuses on his or her neurochemistry, looked inside the



person for explanations of behavior, mostly ignoring the world outside” (Gallagher, 2006, p. xvi). Urbanization, population growth, resource depletion, and economic downturn have created many obstacles for homes to have juxtaposition to nature, cutting a key component to the creation of *placeness*.

“Milder local natural wonders that we encounter in and around our homes, small doses of clouds, plants, streams, and birdsong, can regularly slow our metabolism, relieve stress, and reverse mental fatigue. Nature supplies insight into our own human nature every day” (Gallagher, 2006, p. 229).

Many studies have reported over and over how important a connection to nature can be during all stages of our lives. There are several key health benefits that interaction with nature provides. Whether it is circadian rhythms, mood, or a connection to life’s cycles, nature’s influence is a positive factor for health and overall wellbeing. Stefan Hammerschmidt, landscape architect, states “a garden or green space in any situation usually gives us a sense of leaving the world behind, giving us the opportunity to clear the mind, stimulating our senses in a quieter way” (Gallagher, 1993, p. 227).

Deliberately placing a stone path or even further, over water, is in Buddhist reference, ‘to be here now’ (Gallagher, 2006). The act of watching your feet in order to cross the path to home, makes you leave your worries of the outside world behind and focus on entering your home in the now (Gallagher, 2006). “Another way to cause a pause and reset or clear your mind is to emphasize the momentary view. This Zen view marks the transition by a glimpse of a distant place” (Gallagher, 2006, p. 552).

Not just our health, but our relationships are positively affected by contact with nature. Shared green spaces for those short on available land, report a better quality of life and sense of community. “It is quite ‘natural’ for us to respond to each other in a caring, trusting, and sensitive manner when we gather in small groups in a natural setting” (Alexander, 1977, p. 148). “Apartment dwellers who have access to a garden feel that they have friendlier neighbors and closer communities than those who do not” (Gallagher, 2006, p. 231).

“Life in much of the developed world has become rule-bound and materially abundant, punctilious and routine, to the extent that longings now run in another direction: towards the natural and unfussy, the rough and authentic” (De Botton, 2006,

p. 159). "Nature is an aesthetically pleasing interior design element and natural content is an important environmental – preference variable" (Miller & Schlitt, 1985, p. 124).

"These natural elements in our home's materials allow for forgiveness in ourselves, appreciating the flaws and/or idiosyncrasies that make a uniqueness. Sufficiently unthreatened by weakness and decadence as to allow for visible celebrations of tenderness" (De Botton, 2006, p. 212).

"We are possibly falling in love with the natural in the art, because we are losing touch with the natural in our own lives" (De Botton, 2006, p. 159). Designers are calling this phenomenon, "wabi." "Wabi is identified beauty related to unpretentious, simple, unfinished, transient things such as rainfall, snow-viewing, old ill-matching sets of crockery and weathered stones," according to De Botton (2006, p. 261). If nature can't be provided outside our homes, then we may have to provide nature on the inside. As stated by the designer, Sherri Donghia, "design application can capture 'wabi' by combining antique and handmade furnishings to create opulent minimalism" (Gallagher, 2006, p. 68).

This speaks to our inner hope of our uniqueness and individuality and in the end, acceptance. Donghia states, "'Wabi Sabi' is about perfect imperfection or never the same sustainable, natural, and one-of-a-kind" (Gallagher, 2006, p. 68). "Nature is the way it is and you can be the way you are. Nature nurtures us through cycles of growth and interdependence of living" (Gallagher, 2006, p. 231).

If what Alexander (1977) states, "a thing is whole only when it is itself entire and also joined to its outside to form a larger entity" is true, then possibly we crave a connection to the unity of inside and outside, through nature and natural elements. In addition, "the openness and spaciousness of the outdoors, brought indoors, can achieve a casual, informal atmosphere in which people can throw off inhibitions and freely be themselves" (Miller & Schlitt, 1985, p. 143).

"The fact is that very few things have so much effect on the feeling inside a room as the sun shining into it. If you want to be sure that your house and the rooms in it are wonderful, comfortable places, treat 'indoor sunlight' seriously; cling to it tenaciously; insist upon it" (Alexander, 1977, p. 615).

Once again, light plays a crucial part in adding interest through variety in nature. “The light affect was accepted a hundred years ago, but the fact is that present day science has forgotten about the importance of circadian rhythms and natural interaction” (Gallagher, 1993, p. 14). The influence of natural light has immense power over our health and happiness. “If the right rooms are facing south, a house is bright and sunny and cheerful; if the wrong rooms are facing south, the house is dark and gloomy” (Alexander, 1977, p. 615). The undeniably positive effect of daylighting in commercial and healthcare facilities has been researched and proven. However, we do not drive the point home in our residential spaces.

“No longer wakened by the dawn, drawn outdoors for much of the day by our way of life, and lulled to sleep by darkness. This change in natural interaction with our outdoor environments may explain why up to a third of us suffer from sleep or mood problems, or both” (Gallagher, 1993, p. 14).

### ***Nature Design Application:***

(Alexander, 1977) & (Gallagher, 2006)

Connection to the earth

- Series of paths and terraces and steps around the edge
  - Place deliberately to make the boundary ambiguous
  - Stepping-stones, crossing water
    - Buddhist parlance
- Straddle the boundary between indoor and outdoor
  - Put windows in the door itself
    - Solid doors with glass
    - Relative color of the entrance
    - Presence of moldings and ornament
- Tapestry of light
  - Light on at least two sides of every room
  - Natural light
- Expanded visual space
  - Every space is always open to some larger space
    - Accessible outdoor spaces
    - Leads into the next space
    - Cover some space outdoor and some space indoor
    - Differentiate from immediate surroundings
    - Partly enclosed
- Entrance transition
  - Texture change of the path to the entrance
  - Bend in the path to the entrance
  - Porch, like an old-fashioned porch

- Include a bench or seat
- Views
  - South facing outdoors
  - Emphasize the momentary view
  - Marks the transition by a glimpse of a distant place
    - (Zen view)
- Access to sources of varied stimulation
  - Provide contact with nature
    - Natural materials
    - Natural colors
    - Water and vegetation
    - Nonvisual experiences
    - Indoor garden

### Aesthetics

There are several opinions on the meaning of aesthetics and what it entails. Some aestheticians view beauty as the appreciation of pure sensory experiences (Miller & Schlitt, 1985). Another interpretation of the aesthetic judgment may be a result of the interaction between two needs: variety and order (Miller & Schlitt, 1985). According to Platt (1961), aesthetic enjoyment involves the perception of “a pattern that contains the unexpected” (p. 126). While Findlay and Field (1982) argue that “the interaction of complexity and continuity forms the basis of an aesthetic experience” (Miller & Schlitt, 1985, p. 126). Wohlwill (1991) describes aesthetics as “an emotional experience; a structured period of time set off from other such experiences” (p. 4). One definition of aesthetics takes on a more participatory interaction:

“Berleant (1982) distinguishes between two philosophical approaches to aesthetic perception: an aesthetic of distance and an aesthetic engagement. According to the former view, the perceiver and the aesthetic object are conceptualized as separate entities in both a physical and a psychological sense. The environment is meant to inspire awe in the viewer as a purely visual experience and to be contemplated and appreciated for its monumentality and symmetry. On the other hand, the latter approach emphasizes the inseparability of the perceiver and the perceived – a fusion of participant and place. The person is invited to experience the environment in all its dimensions rather than remain at a distance from it” (Miller & Schlitt, 1985, p. 128).

Wohlwill (1991) describes aesthetics for the experiencing subject, in several ways: awe, beauty, surprise, joy, pleasure, strangeness/familiarity. Describing aesthetic feelings, such as feelings of beauty and awe, aestheticians are divided on this matter, but for understanding scientific discovery it seems to Wohlwill (1991), that the “right place to locate aesthetic experience is within the affective domain, a region where cognition and emotion interact” (p. 4). “Feelings of beauty and awe are good examples of subjective experiences, while attributes of symmetry and complexity are examples of properties of objects” (Wohlwill, 1991, p. 5). Proshansky (1978) states “the feelings of attachment to places, objects and types of environment, together with aesthetic preferences, are considered to reflect the affective-evaluative dimensions of the individuals’ place identity” (Bonnes, Lee, & Bonaiuto, 2003, p. 151).

“With regard to each potential attribute of the aesthetic experience, there probably is no absolute value or intensity that is decisive. It is, rather, change in awareness that evokes the aesthetic experience” (Wohlwill, 1991, p. 5).

Aesthetics includes three subcategories: beauty, pleasure, and sensory. Beauty refers to the subjective visual preferences a person may have. Pleasure captures a more holistic feeling and is broken down into subcategories. Sensory is an all-encompassing, holistic experience that involves our ability to engage and interpret our space preferences.

## **Beauty**

Like aesthetics, beauty also falls into an ambiguous, at times subjective, realm. “This subjectivity falls in part due to the meanings of forms, shapes, styles, materials, lighting, color, and spatial configurations based upon one’s own past experience, unique to the individual, and/or represent the shared associations of a cultural group” (Miller & Schlitt, 1985, p. 123).

“A diversity of styles is a natural consequence of the nature of our inner needs. It is only logical that we should be drawn to styles that speak of excitement as well as calm, of grandeur as well as coziness, given that these are key polarities around which our own lives revolve. As Stendhal knew, ‘There are as many styles of beauty as there are happiness’” (De Botton, 2006, p. 166).

As referenced earlier, natural elements and nature itself is a recurring common denominator in the aesthetic and beauty preference debate. “Although there may be danger in relying upon universal principles of beauty given that individual differences in aesthetic responses are expected, however the meaning and significance of the natural/artificial distinction for people in general appears to be well documented” (Miller & Schlitt, 1985, p. 124).

Art pieces we are drawn to seem to speak to our subconscious, stirring emotions and memories that are preferably positive. As De Botton (2006) states, “art pieces may be perceived beautiful when they succeed in evoking what seem to us the most attractive, significant attributes of humans and animals” (p. 84). “Spending time in beautiful spaces, far from a self-indulgent luxury, was deemed to lie at the core of the quest to become an honorable person” (De Botton, 2006, p. 118). This could be an innate way for us to reflect our desired positive selves in our surroundings and therefore have better relationships with others. “This experience has a happy term referred to as ‘peak experience,’ which is when we see people in a better light and are more kind in attractive settings” (Gallagher, 2006, p. 70).

“The quality of the aesthetic environment, because of its association with the approach-avoidance dimension of human behavior, can set the stage for the satisfaction of other needs. People tend to remain longer (Mintz, 1956), evaluate people more positively (Maslow and Mintz, 1956), and are more willing to interact with others (Mehrabian and Russell, 1975) in pleasant, attractive settings than in unattractive ones” (Miller & Schlitt, 1985, p. 120).

Beautiful environments seem to reflect the person we want to reflect, our positive, shiny selves. “Essentially this facilitates the supposedly subconscious goal, to identify objects and decorative features, which will correlate with certain beneficial inner states and foster them within ourselves” (De Botton, 2006, p. 119). Placing art in our homes also adds a layer of humility and beauty. “Artistic pieces generally addresses our deepest human feelings and behaviors, sometimes speaking to a part of us we can’t explain and in essence, ensuring what is around us will fortify the truths within us” (De Botton, 2006, p. 112).

“To describe a building as beautiful therefore suggests more than a mere aesthetic fondness; it implies an attraction to the particular way of life this structure is promoting through its roof, door handles, window frames, staircase and furnishings. A feeling of beauty is a sign that we have come upon a material articulation of certain of our ideas of a good life” (De Botton, 2006, p. 72).

“Defined elegance stands as markers of patience and generosity, a kind of sweetness and even love: a kindness without ulterior motive, entertain our eyes and charm our reason” (De Botton, 2006, p. 211). Friedrich Schiller (1794) further explains this environmental communication and reflection of ourselves in *On the Aesthetic Education of Man*:

“Idealized art could be sources of inspiration, to which we would be able to turn when we had lost confidence in ourselves and were in contact only with our flaws; ‘absolute manifestation of potential;’ they were to function like ‘an escort descended from the world of the ideal’” (De Botton, 2006, p. 137).

“Exquisite surroundings could edge us towards perfection. A beautiful building could reinforce our resolve to be good” (De Botton, 2006, p. 117).

“If buildings can act as a repository of our ideals, it is because they can be purged of all the unhappiness that corrodes ordinary lives. A great work of architecture will speak to us of a degree of serenity, strength, poise and grace to which we, both as creators and audiences, typically cannot do justice – and it will for this very reason beguile and move us. Architecture excites our respect to the extent that it surpasses us” (De Botton, 2006, p. 137).

“Beauty is the promise of happiness,” Stendhal (De Botton, 2006, p. 98). “No matter the taste, we feel more comfortable in a decorated room than in a bare one; where good mood is induced by being in a pleasant setting” (Gallagher, 2006, p. 69).

“We respect a style, which can move us away from what we fear and towards what we crave: style, which carries the correct dosage of our missing virtues. That we need art in the first place is a sign that we stand in almost permanent danger of imbalance, of failing to regulate our extremes, of losing our grip on the golden mean between life’s great opposites: boredom and excitement, reason and imagination, simplicity and complexity, safety and danger, austerity and luxury” (De Botton, 2006, p. 157).

### ***Beauty Design Application:***

(Alexander, 1977) & (Miller & Schlitt, 1985)

- Ornamentation

- Contextual fit
- Combinations of diversity and repetition
  - Pattern
  - Shape
  - Form
- Boundaries
  - Trim
  - Embellishment
  - Natural ornaments
- Themes
  - Style
  - Texture
  - Color
    - Coordinating, rather than matching colors
  - Dissimilar furnishings balanced horizontally and/or vertically
- Places of connection (elements of building and nature)
  - Doors
  - Windows

## **Pleasure**

Just like beauty, pleasure is also difficult to define. Beauty and pleasure may be closely tied, considering Miller and Schlitt's (1985) reference to aesthetic pleasure and the emotional association to certain design elements. Daniel Berlyne's theory (1971) regarding "arousal potential" suggested pleasure derived from works of art, in which have an accumulation of aspects that give art pieces a positive intrinsic pleasure/enjoyment value and may be related to measureable arousal levels, (Rengel, 2007). Berlyne relates "arousal stimulus as the primary, if not sole determinant of its pleasure factor" (Leff, 1978, p. 34).

"Simplicity, consistency, and coherence are satisfying in important ways to human beings. Not only do people seek to lower unusually high levels of arousal and seek out moderate arousal through complex or novel or surprising stimuli, but they also seek the resolution of inconsistencies, ambiguities, and doubts. However, it may also be that simplicity, coherence, and elegance have a more direct capacity for producing pleasurable experience, perhaps in much the same way that the meaningful content of a scene can" (Leff, 1978, p. 33).

This concept refers back to earlier statements relating to historical meanings and innate connections having the most impact on individual preferences. There must exist an



understanding of the association and meaning behind aesthetically pleasurable experiences.

“Aesthetic experience appears to involve more than simple processes of change in arousal level. Hans and Shulamith Kreidler (1972) have presented the view that, in addition to processes of tension and relief, the enhancement of one’s ‘cognitive orientation’ – one’s understanding and conceptualizing of the world – constitutes a primary source of aesthetic satisfaction in experiencing works of art. Similarly, Rudolf Arnheim’s (1954) masterful analysis of the psychology of visual art indicates that subtle cognitive processes may be essential to aesthetic pleasure” (Leff, 1978, p. 33).

The difficulty in defining aesthetics is possibly due to the higher we rise on the proposed pyramid of *placeness*, reaching toward our highest selves. The closer we get to Maslow’s corresponding levels of self-actualization and transcendence, the more difficult this state is to put into words, the more philosophical and ethereal the pinnacle states become. Each level is building on the other in a combination and progression to the next, so our appreciation and preferences are dependent on our progression and individual combinations of met needs.

“Reaching the I, substantially reaching the eternal self, reaching what Zen calls ‘No mind,’ reaching what the Sufis call ‘drunk in God.’ That is hard because today, it is not something that society encourages, not something society can easily tolerate. To have hope of reaching I, there is a simple rule that must be followed. You must make each thing, shape each thing, so that you really like it, so that it really pleases you” (Alexander, 2004, p. 275).

### ***Pleasure Design Application***

In order to break down pleasure and relate what this may actually mean to each of us, Green and Jordan (1999) divide the meaning into four subsets:

- Physio-pleasure: pleasures to do with the body and the senses
- Socio-pleasure: pleasures to do with inter-personal and social relationships
- Psycho-pleasure: pleasures to do with the mind
- Ideo-pleasure: pleasures to do with values

These pleasure sub-sets could be proposed to correlate with Maslow’s pyramid and this thesis’s design hierarchy. The design application would be referenced to the corresponding design categories.

- Physio-pleasure:
  - Aesthetics

- Socio-pleasure:
  - Social engagement
- Psycho-pleasure:
  - Interest
- Ideo-pleasure
  - Personalization

(Reference to each subheading to see the correlating design application)

## Sensory

“Human spaces reflect the quality of the human senses and mentality” (Tuan, 1977, p. 16). Malnar and Vodvarka (2004) ask: “what would built environment be like if sensory response, sentiment, and memory were critical design factors, more vital even than structure and program” (preface). “We can be connected or separated by seeing, hearing, touching, smelling, and/or perceiving” (Miller & Schlitt, 1985, p. 46). This concept coupled with exponentially increasing technology and the barrage of graphic screens and constant technological “connection” is taking its toll on our health and well-being and our “real” relationships. Our senses are in overload and we are trying to adapt consciously and subconsciously. However, the price for this coping strategy can be a reduction in the quantity and quality of our experiences (Gallagher, 1993). “We all seek a comfortable level of arousal from our settings, one that neither so low as to court boredom nor so high as to invite anxiety” (Gallagher, 1993, p. 20).

“Suedfeld’s research on and personal experience with what he calls ‘challenging’ environments make him skeptical about the wisdom of cramming ever more people, places, and things into our days, to the point that fatigue has become a leading modern malaise. More of us live toward the high end of the stimulation spectrum, he says. We’re programmed by evolution and experience to handle a wide range, but it does have its limits. It’s important psychologically and probably neurologically to reduce that load periodically and restore the balance” (Gallagher, 1993, p. 149).

Our senses are what keep us in tune with our environments. In regard to *placeness*, Forrest and Painter, design psychologists at UCLA, state the “place recognition in the Amygdala, same as the ‘friend or foe’ response, results in a rapid, subconscious identification process” (Gallagher, 2006, p. 60). This addresses the “YES”

feeling when entering a space that speaks to our senses and reflects our personal sensory stimulation preferences, in a positive manner. On the contrary, this also speaks to the “Eww” factor, when entering an assaulting sensory space and respond in an immediate negative manner. These vivid sensory experiences such as sounds, odors, and textures, facilitate attachment to place (Miller & Schlitt, 1985).

***Sensory Design Application:***

(Miller & Schlitt, 1985)

- Psychological escape/psychological separation
  - Views
    - South facing outdoors,
    - Emphasize the momentary view
    - Marks the transition by a glimpse of a distant place
      - (Zen view)
- Sounds
  - Soft porous materials (absorb)
    - Upholstered furniture
    - Thick carpeting
  - Hard dense surfaces (reflect)
    - Walls
    - Mirrors
    - Hard floors
- Taste
- Kinesthetic
  - Human scale
  - Ergonomics
- Tactile stimulating fabrics and materials
  - Polished wood
  - Velvet/fur
  - Tweed
  - Wool
- Appeal to temperature sense
  - Metals (coldness)
  - Woods (warmth)
- Vivid visual experiences
  - Striking patterns
  - Bold designs
  - Brightly lit rooms
  - Warm colors (red, orange, yellow)
- Engaging smells
  - Natural materials

Self



Figure 3. Proposed interior design pyramid to *placeness* and highest self

“It provides shelter; its hierarchy of spaces answers social needs; it is a field of care, a repository of memories and dreams. Successful architecture ‘creates the semblance of that World which is the counterpart of a Self.’ For personal selfhood that world is the house” (Tuan, 1977, p. 164).

In combination and progression of the above categories and subcategories, is when one reaches the true and complete communication through their environment, with themselves and others. This positive reflection of self, whether conscious or subconscious, innate or intentional, is built upon the development of *placeness*, a collaborative and cohesive effort to reach our ultimate “I.”

“Structure is the stepping-stone, which brings us to the transcendent unity. We may think of the structure as if it were a window that allows us to look through at the transcendent unity. It – the unity itself – is not a structure. But it can be seen, grasped, felt, perceived, only through the medium of something, which is a structure” (Alexander, 2004, p. 239).

Alexander (2004) states, “I believe that all wholeness may be considered, ultimately as a kind of light, and that all wholeness, helps us to communicate with the transcendent realm where pure unity exists” (p. 236). This “I” belongs to the partnership with

Maslow's self-actualization and transcendence level, allowing our *placeness* to facilitate our highest selves through a tangible, space reference.

"I believe that the ultimate effort of all serious art is to make things which connect with this "I" of every person. This "I," not normally available, is dredged up, forced to the light, forced in the light of day, by the work of art" (Alexander, 2004, p. 4).

"The value of what is done, in any work of art, depends, in the end, on the extent that the artist can reach down to his own humanity, into his own person, and draw the thing he makes from this most ordinary person which exists inside. Yet it is not easy to reach the genuinely human part of oneself, the childlike part, which is true and simple. It works because living structure – what I call the field of centers – really is a mirror of the human heart. It is only knowledge of this structure, and the practice of making it, which gives you a key to unlock your own heart. Thus, paradoxically, it is only when you finally are truly personal, when you really put your humanness in to the things you make, that you genuinely reach the objective living structure. Living structure is a thing, which can, finally, only be reached by humanness – by the personal, and individual childish temperament, which lets a person be vulnerable to the entire world, in the things he makes. But a person will only be able to reach the ability to be personal in this way, to express true feeling in this way, once he has mastered the abstract structure, which I call the field of centers. It is only after truly being able to experience this field of centers that you reach the point where you are able to be personal. Then, finally, you are able to make something really whole – whenever this personal light feeling finds its way into the things you do" (Alexander, 2004, p. 298).

"Places we live in are reflections of that process of striving toward a state of wholeness, of being wholly ourselves, and indeed the places themselves have a powerful effect on our journey toward wholeness" (Marcus, 1995, p. 10). Through this connection of our environment, *placeness* and self, intertwined to reach a fulfillment that can only be reached when all the pieces come together as one. Certainly the home environment is an integral part of the self. According to philosopher Jung, we are striving toward "inner wholeness or individuation" (Marcus, 1995, p. 10).

"Jung built his house over time as a representation in stone of his own evolving and maturing psyche: It was the place, he said, where 'I am in the midst of my true life, I am most deeply myself.' This was a place where he could reflect upon who he was and would become. Upon completion and reflecting on how all the parts fit together, he recognized it as a symbol of psychic wholeness.

Though few of us may ever build a house for ourselves, let alone reflect on its symbolic meaning, most of us do create some space in the world that is ours and whether consciously or unconsciously, we shape and decorate it to express our values” (Marcus, 1995, p. 50).

“The possibility of all order as something transcendent, in which wholeness is produced, a wholeness connecting us directly with the ground of all things” (Alexander, 2004, p. 238).

“It is the living structure of buildings, which awakens a connection with this personal feeling. The more that it appears in a building, the more it awakens this feeling in us. Indeed, we may say, truly, that a building has life in it to the extent that it awakens this connection to the personal. Or, other language, we may say that building has life in it, to the extent it awakens the connection to the eternal vastness, which existed before me, and around me, and after me” (Alexander, 2004, p. 8).

Finally, in finding our true selves with the built environment, we need a reference point to see ourselves. The link between ourselves and *placeness*, which speaks to the heart of this thesis, is about striving to our best and having a carved out locality to view our best from.

“The materials around us will speak to us of the highest hopes we have for ourselves. In this setting, we can come close to a state of mind marked by integrity and vitality. We can feel inwardly liberated. We can, in a profound sense, return home” (De Botton, 2006, p. 119).

## Conclusion

In order for interior designers to capture *placeness*, we must first provide a concise and descriptive meaning that communicates the elusive essence of this term. *Placeness* is a complex and intensely meaningful goal, especially for those that understand the environmental/human connection. Through *placeness*, we can elevate ourselves to our highest potential and facilitate positive, nurturing relationships through and with our built environments.

Based on the literature review, *placeness* is not a well-known term or concept. Limited research has been done on residential environmental-psychology and the creation of *placeness*. Existing related research depicts elements related to *placeness* including meaning associated through historical references or memory, sensory engagement, and emotional attachments.

This study is attempting to define the framework for much more extensive and conclusive research. This study is beginning at the definition of needs unmet and attempting to correlate an established needs hierarchy to understand our environmental influences as part of our fundamental selves. The concept is in hopes of looking at interior design through the deep, fundamental influences, which will allow designers another set of tools to meet client needs and communicate more effectively.

### III. METHODOLOGY

#### Overview

The main methodology for this research is the survey/questionnaire approach. The survey is an attitudinal approach attempting to capture honest preferences and perceptions of the proposed hierarchy and *placeness* attributes. This survey method is a person's self-reported characteristics, thoughts, feelings, perceptions, behaviors, or attitudes (Hannington & Martin, 2012). The survey is a traditional method that will deliver a closed-forced choice in an anonymous online format. The Likert-scaled questions were grouped together for ease and understanding by the respondents (Zeisel, 2007). The differential scale involving five-point pre-coded checklist of "not very important" to "very important," is used.

The deliverables will result in an exploratory and comparative format due to the Likert attitude scale and the semantic differential scale. Empirical procedures to choose and score groups of statements that relate to one another can be done by researchers (Zeisel, 2007). A set of appropriate alternatives more aptly captures meanings people have and therefore underlies the analytic coding technique - semantic differential scale (Zeisel, 2007).

Essentially, this study will result in quantitative and qualitative results that can produce a comparative preference analysis, between an individual question and between question groups. In order for ease in analysis, ordinal pre-coding was used for the demographic information (Zeisel, 2007). Furthermore, in order for easier preference analysis, the Likert attitude scale is used, to indicate the intensity of the participants' agreement or disagreement and ultimate preference (Zeisel, 2007). If the scaling technique is critically examined, it can be selectively used to define and extract the quality and intensity of meaning such as environments, persons, places and situations hold for people (Zeisel, 2007).

Place as a positive reflection of self involves two variables: definition of *placeness* and definition of self. Attempting to capture that initial, almost primal/innate "Yes" response vs. the "Eww" response we all have to a threshold, the residential



entryway/foyer is used as a hypothetical setting. Entryways and foyers are areas of transition and points of approach-avoidance for people (Rengel, 2007). This study tries to capture interior elements people desire to have in their entryway/foyer in order to evoke an “approach” reaction.

Emotion and meaning are established earlier in this thesis as essential factors involved with establishing *placeness*. However, using the association with Maslow’s established hierarchy of needs, both providing a widely known framework reference and addressing the fundamental needs relationship, this study attempts to define a categorical level of *placeness*. What level in our established hierarchy does an emotional, meaningful engagement exist?

Mehrabian and Russell established the ‘avoidance-approach response’ as a person’s behavioral reaction (jumping with excitement or running in disgust) after their processing of conditions presented by the place and situation (Rengel, 2007). With Mehrabian and Russell’s study, three dimensions of emotional reactions (arousal, pleasure, dominance) were defined in different combinations and therefore may produce all possible feelings resulting in approach or avoidance of the environment (Rengel, 2007). This thesis is concerned with interior design associations and at what level we develop an emotional engagement and in essence the beginning of *placeness* establishment.

Next, it is necessary to establish the belief that Maslow’s hierarchy is, in fact, a well-established and well-known scientifically accepted framework to reference. Giving the participants the inability to refer back to previous questions, the study attempts to obtain a true reading on previous knowledge of Maslow’s pyramid and hierarchical ranking. Once ranking is complete, establishing “very important” to mean more fundamental and necessary for other categories to build upon, the study establishes definition assumptions for the ranked categories.

This thesis’ proposes *placeness* definition is given and the participant is asked to depict at which level the defined *placeness* begins for them, on the design hierarchal pyramid. Once again, this is addressing *placeness* preferences and what interior design categories are more fundamental to individuals.

Research suggests that people have not one but multiple selves based on situation, setting, interaction, etc. Patterns of thoughts, emotions, and behaviors that characterize an individual depicts their identity (Rengel, 2007). The next part of the survey deals with establishing “self” variables and attempted to correlate definitions of “self” with *placeness* preferences. Therefore, this study attempts to correlate motive and self-image projections related to their entryway/foyer and *placeness* preference hierarchy. Rengel (2007) references the “image congruence hypothesis”, that supports individuals actively seek those places that correspond to their self-image:

- Expected social self-image (how you expect to see yourself in the future)
- Ideal social self-image (how you would like others to see you)
- Social self-image (how you feel others see you)
- Ideal self-image (how you would like to see yourself)
- Actual self-image

In relation to interior design, this correlates to asking about experience and function of a space, over style preferences, in order to get to the bottom of what a client really wants and needs.

“Human behavior is almost totally explained on the basis of motivations and emotions of which one is not necessarily always aware. This readiness to action derives, in the case of emotion, from an affective status of either attraction to or repulsion for a stimulus; in the case of motivation it derives from the sensation of a need and from the tendency to try to diminish the tension it causes” (Bonnes, Lee, & Bonaiuto, 2003, p. 69).

One of the designer’s tasks is to make sense of the client’s image and seek a corresponding expression through design. Therefore, compared to retail space branding for designers, this study attempts to reveal lifestyle preferences and portrayals in residences, just as in marketing attempts to create a threshold of engagement.

Related to consumer practices, including houses, furnishings, and style aspects, the self-image of an individual manifests itself outwardly as a particular lifestyle. Lifestyle practices have proven more useful for marketers and consumer preference predictions rather than isolated traits and other aspects of personality (Rengel, 2007).

This self-image expression is evident in many different ways through the materials used, the style used for the interior architectural elements, the furnishings selected, and the detailing of the project (Rengel, 2007). Eric Arnould, Linda Price, and George Zinkhan highlight five motives that drive consumers to formulate their self-images and related product choices (Rengel, 2007). In this study, these motives are rated according to importance in a person's entryway/foyer:

- The “affiliation motive” or a space for intimate and meaningful relationships, a welcoming and friendly space to connect with others
- The “achievement motive” or space for my important and expensive possessions, to show my achievements and status
- The “power motive” or space I can be in control and influence the situation
- The “self-esteem motive” or a space where I can express myself in a proud and positive way
- The “uniqueness/novelty motive” or a space that sets me apart from others in a unique way

Then finally, this study attempts to further define “self” and personality preferences. People vary in emotional traits and temperaments. A person's personality and temperament dictates their self-preservation modes by screening out more or less of the stimuli presented through the environment in order to reduce the actual environmental load perceived (Rengel, 2007). Some people screen a lot of the stimuli (screeners) and others do not (non-screeners) (Rengel, 2007).

### Research Questions

The purpose of this study is to define interior design elements and categories that positively attach a person to a space. These attachments are linking interior design elements and Maslow's hierarchy of needs, ultimately facilitating a higher level of self. A questionnaire was used to investigate three main research questions.

- III. Which key aspects in interior design speak to our innate needs and positive connection to our built interiors? [PLACE PREFERENCES DATA]

- IV. How interactive and intuitive is the proposed *placeness*/Maslow's need hierarchy association and relationship? [CURRENT KNOWLEDGE OF MASLOW'S HIERARCHY ASSOCIATION DATA]
- V. How are various defined interpretations of self-image and specific lifestyle motives displayed in interior design preferences? How do screener/nonscreener preferences distinguish interior designs self-reflection and environment interaction? [INDIVIDUAL ROLES OF SELF DATA]

### Hypotheses

The following hypotheses were created to answer the first research question.

- Hypothesis 1 (H1): Key aspects in interior design speak to our innate needs and individual preferences, establishing a positive connection to our built interiors. [PLACE PREFERENCES DATA]
  - The importance ratings involved five criteria used to test the hypothesis:
    - Criterion 1 (CR1): Control
    - Criterion 2 (CR2): Social Engagement
    - Criterion 3 (CR3): Personalization
    - Criterion 4 (CR4): Interest
    - Criterion 5 (CR5): Aesthetics
- Hypothesis 2 (H2): *Placeness*, as defined above, is achieved on varying levels within the proposed correlating pyramid, dependent on personal variables related to self-identity (conscious and unconscious) due to the innate, reflection of self. [PLACE PREFERENCES DATA]

The following hypotheses were created to answer the second research question.

- Hypothesis 3 (H3): Maslow's Hierarchy is intuitive enough for others to place categories in the same hierarchical order of importance as Maslow and associated definitions are well known. [CURRENT KNOWLEDGE OF MASLOW'S HIERARCHY ASSOCIATION DATA]

- The importance ratings involved eight criteria used to test the hypothesis:
  - Criterion 1 (CR1): Aesthetic needs
  - Criterion 2 (CR2): Esteem needs
  - Criterion 3 (CR3): Safety needs
  - Criterion 4 (CR4): Physiological needs
  - Criterion 5 (CR5): Belonging and love needs
  - Criterion 6 (CR6): Self-actualization
  - Criterion 7 (CR7): Need to know and understand
  - Criterion 8 (CR8): Transcendence

The following hypotheses were created to answer the third research question.

- Hypothesis 4 (H4): Place as a positive reflection of self is dependent on the individual's interpretation of one's self and therefore their specific life-style motive. [INDIVIDUAL ROLES OF SELF DATA]
  - Five motive categories were used to test this hypothesis:
    - Criterion 1 (CR1): Affiliation motive
    - Criterion 2 (CR2): Achievement motive
    - Criterion 3 (CR3): Power motive
    - Criterion 4 (CR4): Self-esteem motive
    - Criterion 5 (CR5): Uniqueness/Novelty motive
- Hypothesis 5 (H5): Place as a positive reflection of self is dependent on the individual's interpretation of one's self and their self-image. [INDIVIDUAL ROLES OF SELF DATA]
  - Five self-image categories were used to test this hypothesis:
    - Criterion 1 (CR1): Expected social self-image
    - Criterion 2 (CR2): Ideal social self-image
    - Criterion 3 (CR3): Social self-image
    - Criterion 4 (CR4): Ideal self-image
    - Criterion 5 (CR5): Actual self-image

- Hypothesis 6 (H6): Associating stimulus preferences with *Placeness* ranking, depicts self-reflection in a space. [INDIVIDUAL ROLES OF SELF DATA]
  - Two criteria preferences were used to test this hypothesis:
    - Criterion 1 (CR1): Screener
    - Criterion 2 (CR2): Non-screener

### Survey

Following an extensive literature review in order to establish a foundation for defining *placeness* elements and their relationship to establishing self, a survey was created to capture this two-prong analysis. The research was initiated after completing the web-based human subjects training from the National Institutes of Health (NIH). The certificate of course completion is displayed in Appendix A: 'Protecting Human Research Participants' course certificate. The Iowa State University review board reviewed the proposed survey methods and approved the method of research as displayed in Appendix B: IRB approval form. The Institutional Review Board (IRB) committee reviews all research involving human subjects/participants. The survey proposed was confidential, online, and participants were affiliated with Iowa State University. The survey data will have password-protection, will be located on the Iowa State University campus and will only be accessed by the researchers. The survey research was consented and was deemed exempt from other regulations by the IRB.

The purpose of the survey was to gather statistical information on interior design categories associating with place preferences. The survey was developed on the Qualtrics survey software program. Qualtrics was selected due to usability and efficiency of distribution and collecting responses. The web-based survey is also a standard method to the student and faculty/staff pool, and allows the collected data to be gathered and analyzed in a timely manner with the software tools. The survey was believed to take approximately ten minutes and intentionally kept brief in order to encourage participation.

A random sampling of 1,500 students [junior (33%), senior (48%), and graduate (18%) students] enrolled at the university was obtained from the Registrar's Office.

This number was obtained in order to maintain a 5% level of interval or 95% confidence level out of the total sampling population of 19,629 student emails. The survey was sent across a diverse sampling of colleges and majors to include an upper-class broad based sampling. The upper-class depiction based on college/department and classification (year in college) was due to the survey's relevance to homeownership and/or residential independence.

Another random sampling was obtained to include 1,500 university faculty/staff email addresses, in order to capture homeowners. The university emails were obtained from University Human Resources. The number to maintain a 5% level of interval or 95% confidence level out of the total sampling population of 6,595 was 363; however, 1,500 emails were sent in hopes to reach an adequate amount of respondents.

An invitation to the study was sent via a random emailing, with an introduction and direct link to the survey. Once the participant opened the link, the survey contained the purpose, duration, and source. A consent prompt was also included, which either allowed them to continue or directly took them to a "thank you" at the end. The survey was conducted at the end of spring semester, 2015.

The survey is referenced in Appendix C: Place as a Positive Reflection of Self Survey. The online questionnaire consisted of eight questions directly related to the hypotheses. Demographics were obtained with eight additional questions. The survey totaled 16 questions. The first half of the survey questions were based on defining *placeness* and establishing an association between Maslow's hierarchy and prior knowledge of Maslow's hierarchy (five questions). The second half of the survey questions related to establishing self-variables and individual preferences correlated with *placeness* (three questions). Questions related to self were based on studies referenced in Rengel (2007).

Participants were unable to refer back to previous pages, in order to prevent leading questions and to obtain a true understanding prior to taking the survey and an honest, spontaneous preference response. The final questions were related to demographic data including defined gender, age, income, education level and/or attainment, ethnicity, homeownership, and age (eight questions).

The separate student surveys and university faculty/staff surveys were combined to obtain 144 results out of 3,000 sent emails (4.8% response). Out of the 144 respondents, 75.4% were upper-class students (83.9% United States citizens) and 24.6% were university faculty/staff. The age range was from 18-68 years of age. The gender demography resulted in 62.4% female and 37.6% male participants. Homeowners compiled 28.8% of those who participating.

The data analysis will be conducted at ISU/IDRO. The data will be analyzed using SPSS (frequencies, crosstabs, correlation, ANOVA, etc.). Microsoft Excel will be used to organize and create viewable charts and tables in order to communicate the findings easily and concisely.



## IV. RESULTS

### Overview

The goals and objectives for the study were to define *placeness*, establish preferences, correlate Maslow's hierarchy of needs and identify preferences related to self-variables. The results were placed into three categories to correspond with the proposed hypotheses: place preferences, current knowledge of Maslow's hierarchy association, and individual roles of self. The results were broken down into important relationship preferences, statistical rating associations, and persistent preference groupings. The preference results are in order of the questions, due to the researcher's intention to not lead the participant and gather the most accurate analysis of both current knowledge and preferences. The order is in hopes to not provide leading questions.

Statistical data, depicting positive associations with individual preference data and *placeness* relationships, could be used to identify certain interior design categories that can most help facilitate self and *placeness*. This pyramid proposal would allow another perspective on optimally meeting client needs.

### Preferences

The first survey questions were asked in order to establish interior design category preferences in the home (Question 4) and then upon first entry (Question 5). The proposed design categories were listed with defining subcategories and remained on the same page as the first two questions, for reference. The categories were placed in random, listed order, so as to not lead the participant. The importance ratings involved five criteria used to test the hypothesis:

- Criterion 1 (CR1): Control
- Criterion 2 (CR2): Social Engagement
- Criterion 3 (CR3): Personalization
- Criterion 4 (CR4): Interest
- Criterion 5 (CR5): Aesthetics

**Which of these categories do you feel is most important to you, in terms of you “home”? (Question 4)**

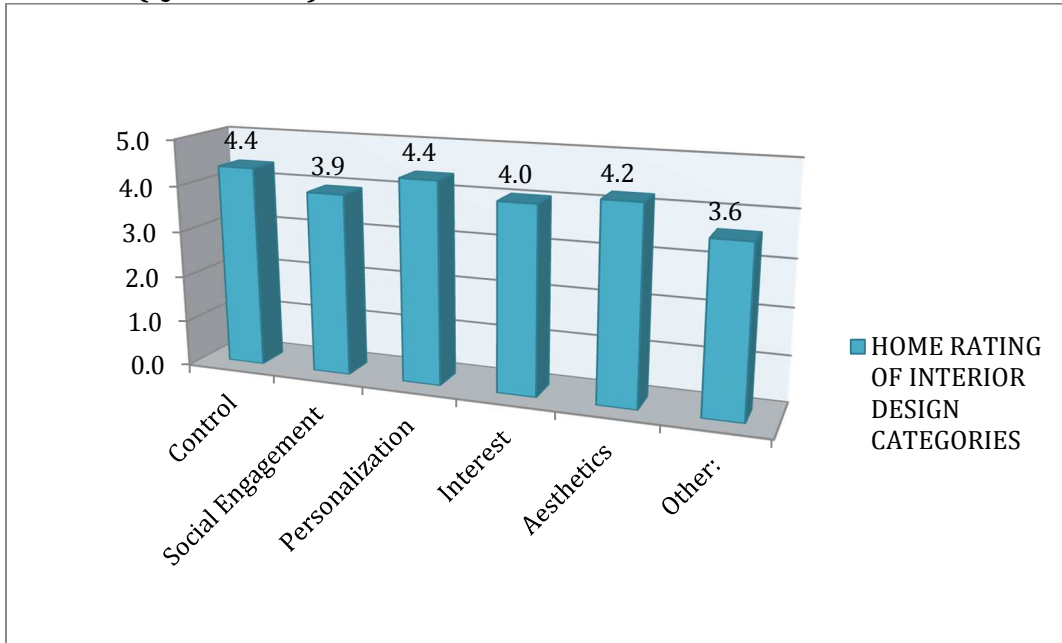


Figure 4. Interior design category preferences related to home (data based on 5-point Likert scale mean)

The “other” option, rating importance in the home, gave participants the ability to fill in text, which resulted in: “audio, baby friendly, cleanliness, escape, function, functionality, pets, simple, and use of space.”

Table 1. Survey results related to Question 4: importance rating of proposed design category levels related to the home, based on mean of a 5-point Likert scale [not very important (1) to very important (5)]

**Design Categories in relation to Home Preference Table**

Survey Question	N	Minimum	Maximum	Mean	Std. Deviation
Q4_1 As defined above, which of these categories do you feel is most important to you, in terms of y...- <b>Interest</b>	144	1	5	4.03	0.864
Q4_2 As defined above, which of these categories do you feel is most important to you, in terms of y...- <b>Personalization</b>	144	1	5	4.37	0.906
Q4_3 As defined above, which of these categories do you feel is most important to you, in terms of y...- <b>Aesthetics</b>	144	1	5	4.22	0.862
Q4_4 As defined above, which of these categories do you feel is most important to you, in terms of y...- <b>Control</b>	144	2	5	4.37	0.746
Q4_5 As defined above, which of these categories do you feel is most important to you, in terms of y...- <b>Social Engagement</b>	144	1	5	3.94	1.012
Q4_6 As defined above, which of these categories do you feel is most important to you, in terms of y...-Other:	26	1	5	3.62	1.388
Valid N (listwise)	26				

**How important is seeing these attributes and/or interior design characteristics upon first entry into a space, such as your entryway or foyer? (Question 5)**

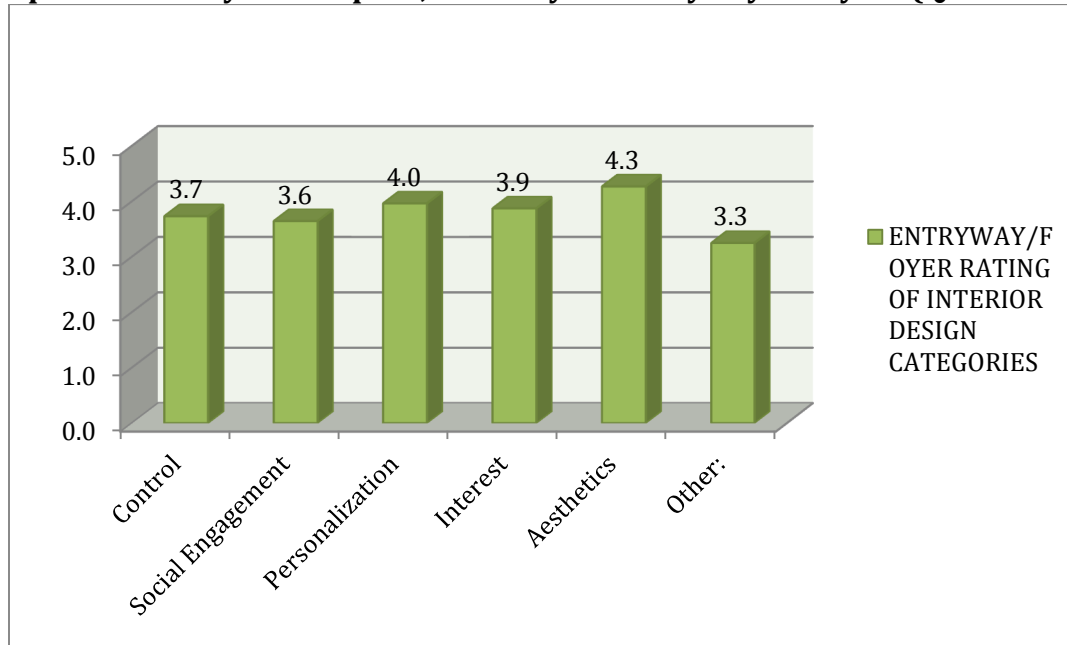


Figure 5. Interior design category preferences related to initial/innate response (data based on 5-point Likert scale mean)

The “other” response for Question 5 (Figure 5), in reference to the entryway/foyer, resulted in “audio and function.”

Table 2. Survey results related to Question 5 (Table 5): importance rating of proposed design category levels related to the entryway/foyer, based on mean of 5-point Likert scale [not very important (1) to very important (5)]

**Design categories in relation to entryway/foyer preference table**

Survey Question	N	Minimum	Maximum	Mean	Std. Deviation
Q5_1 As defined above, how important is seeing these attributes and/or interior design characteristi...- <b>Interest</b>	144	1	5	3.88	0.981
Q5_2 As defined above, how important is seeing these attributes and/or interior design characteristi...- <b>Personalization</b>	143	1	5	3.97	1.177
Q5_3 As defined above, how important is seeing these attributes and/or interior design characteristi...- <b>Aesthetics</b>	144	1	5	4.27	0.895
Q5_4 As defined above, how important is seeing these attributes and/or interior design characteristi...- <b>Control</b>	143	1	5	3.73	1.107
Q5_5 As defined above, how important is seeing these attributes and/or interior design characteristi...- <b>Social Engagement</b>	144	1	5	3.65	1.041
Q5_6 As defined above, how important is seeing these attributes and/or interior design characteristi...-Other:	16	1	5	3.25	1.342
Valid N (listwise)	14				

An unexpected result showed an interesting relationship between categories: “Aesthetics and Interest,” “Personalization and Aesthetics,” and “Control and Social Engagement,” as shown in (Figure 7). This result may be reference to the cross-definition of categories.

**Linked interior design categories based on importance preference**

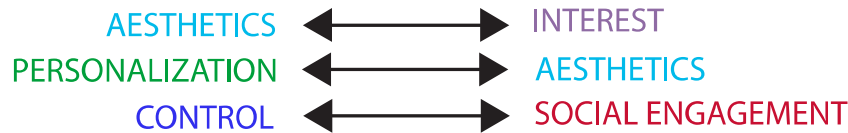


Figure 6. Importance rating showed an interesting relationship within the design pyramid, between certain levels.



Figure 7. Proposed design pyramid, control being most important and moving upward according to the hierarchy of prepotency.

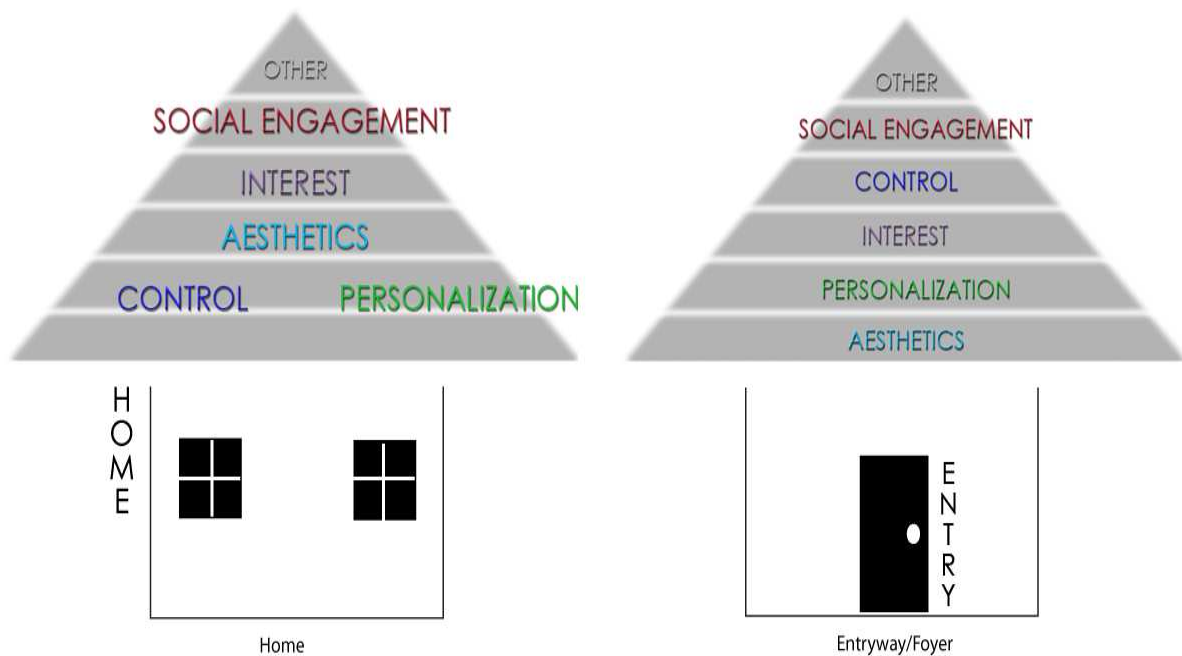


Figure 8. Associating hierarchy of interior design category preferences, related to home and entryway/foyer (data based on 5-point Likert scale mean)

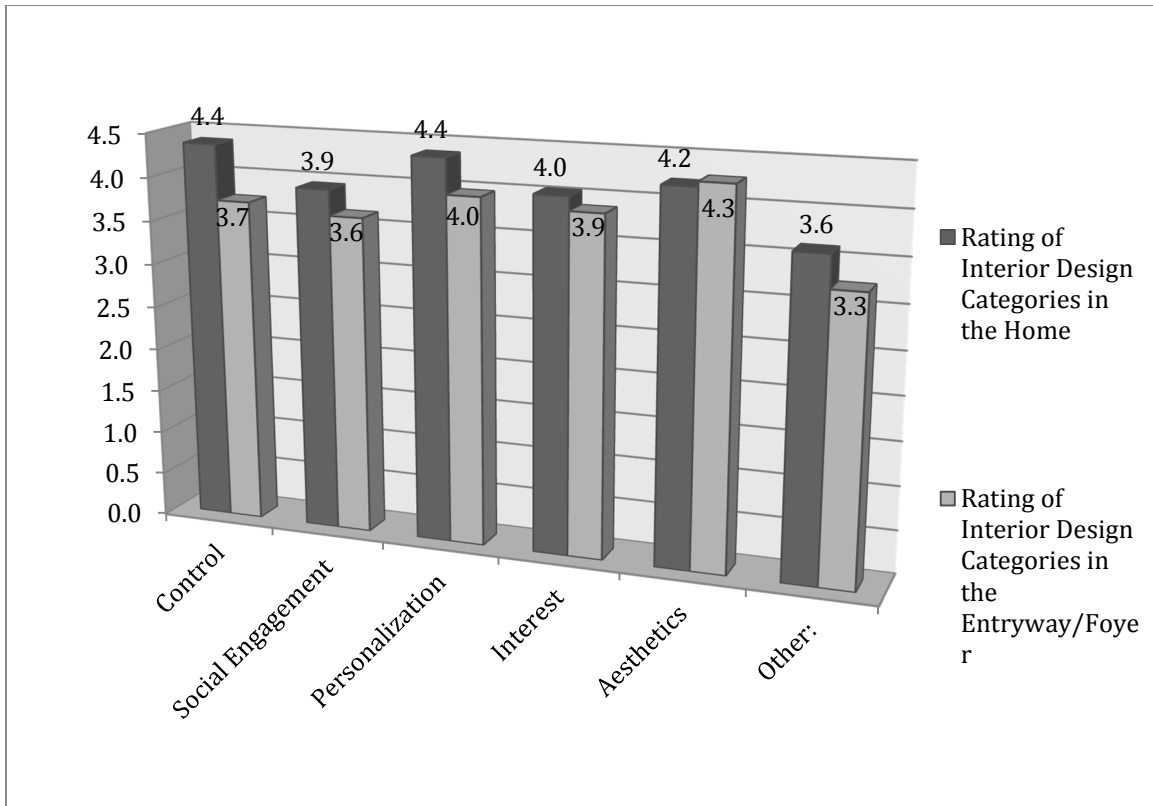


Figure 9. Association of interior design category preferences, related to home and entryway/foyer (data based on 5-point Likert scale mean)

### *Hypothesis (1)*

Hypothesis (1) states that key aspects in interior design speak to our innate needs and individual preferences, establishing a positive connection to our built interiors. [PLACE PREFERENCES DATA]

(H1): The hypothesis was not supported in regards to the proposed importance of preference ratings and design pyramid. The proposed hierarchy of the most important preference starting at the foundation or base of the pyramid (control) and therefore needing to be satisfied before progressing upwards was not supported.

(H1): A positive preference association carried through to the entryway/foyer, establishing an important relationship between home preferences and

entryway/foyer preferences (Figures 7 & 8). Therefore, design preferences are carried throughout and support the importance of the entryway transition.

(H1): Out of the five categories used to test this hypothesis (control, social engagement, personalization, interest, and aesthetics) there is an interesting relationship/association between aesthetics and interest, personalization and aesthetics, control and social engagement.

### Design Categories and Maslow's Hierarchy of Needs Association

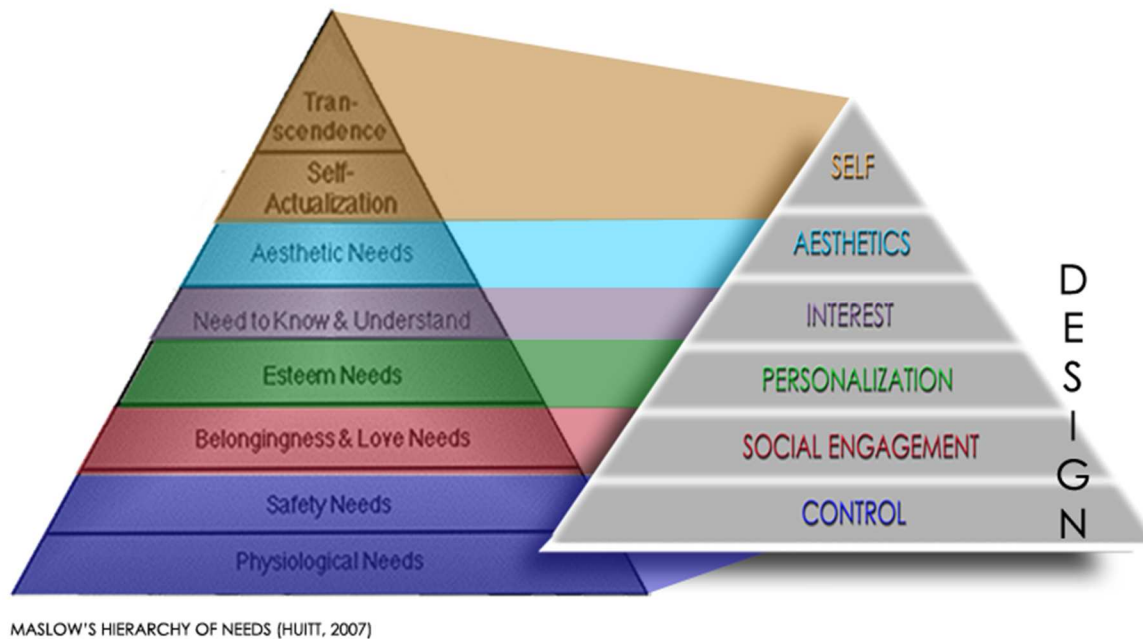


Figure 10. Proposed association of Maslow's hierarchy of needs category preferences and interior design category preferences in relation to home

In order to research the relationship between design/environment and our fundamental needs, it was necessary to begin with a knowledge assessment. Therefore, the next section of the study was devoted to establishing Maslow's hierarchy of needs as a common frame of reference, both in terminology and format. The following eight levels of Maslow's hierarchy were used to test this hypothesis. The established pyramid of Maslow's hierarchy of needs was not shown and categories were placed in random,

listed order as below, so as to not lead the participant. The importance ratings involved eight criteria used to test the hypothesis:

- Criterion 1 (CR1): Aesthetic needs
- Criterion 2 (CR2): Esteem needs
- Criterion 3 (CR3): Safety needs
- Criterion 4 (CR4): Physiological needs
- Criterion 5 (CR5): Belonging and love needs
- Criterion 6 (CR6): Self-actualization
- Criterion 7 (CR7): Need to know and understand
- Criterion 8 (CR8): Transcendence

**Which of the categories on the following list, do you feel is most important to you in terms of your home? (Question 6)**

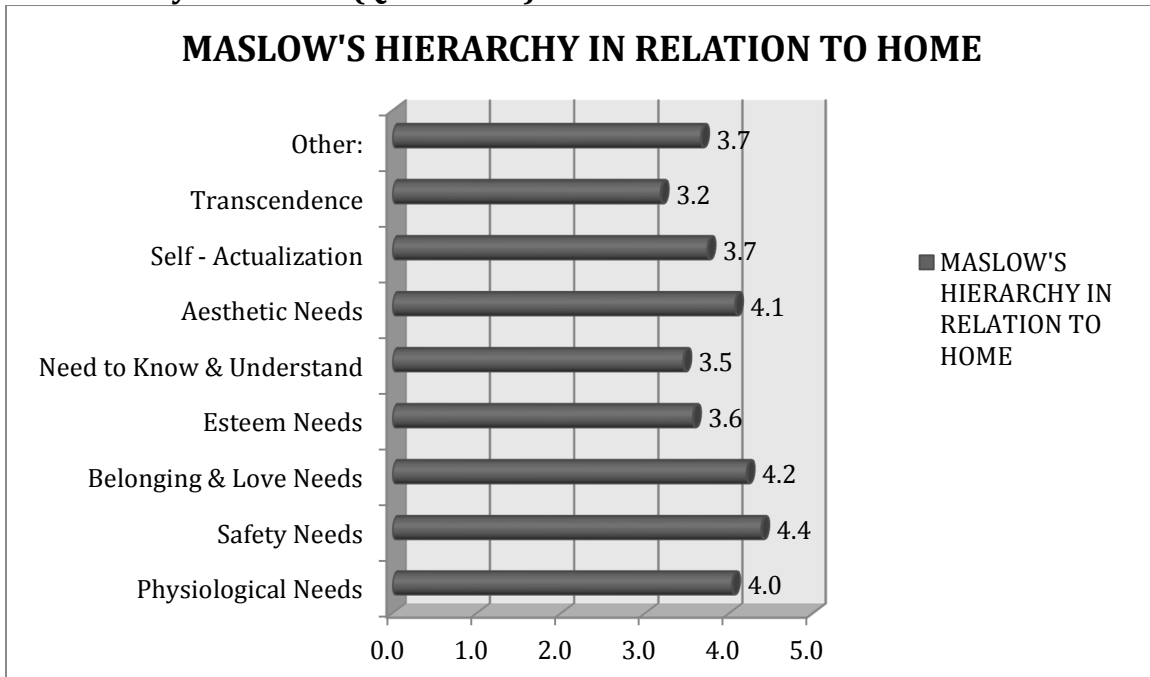


Figure 11. Maslow's hierarchy of need category preferences related to home (data based on 5-point Likert scale mean)



Table 3. Survey results related to Question 6: importance rating of Maslow's hierarchy of needs levels based on mean of 5-point Likert scale [not very important (1) to very important (5)]

**Maslow's Hierarchy of Needs in relation to Home Preference Table**

Survey Question	N	Minimum	Maximum	Mean	Std. Deviation
Q6_1 Which of the categories on the following list, do you feel is most important to you in terms of...- <b>Aesthetic Needs</b>	137	1	5	4.07	0.819
Q6_2 Which of the categories on the following list, do you feel is most important to you in terms of...- <b>Esteem Needs</b>	135	1	5	3.57	1.110
Q6_3 Which of the categories on the following list, do you feel is most important to you in terms of...- <b>Safety Needs</b>	137	2	5	4.39	0.860
Q6_4 Which of the categories on the following list, do you feel is most important to you in terms of...- <b>Physiological Needs</b>	137	1	5	4.04	0.943
Q6_5 Which of the categories on the following list, do you feel is most important to you in terms of...- <b>Belonging &amp; Love Needs</b>	137	1	5	4.21	0.988
Q6_6 Which of the categories on the following list, do you feel is most important to you in terms of...- <b>Self - Actualization</b>	136	1	5	3.74	1.068
Q6_7 Which of the categories on the following list, do you feel is most important to you in terms of...- <b>Transcendence</b>	134	1	5	3.19	1.012
Q6_8 Which of the categories on the following list, do you feel is most important to you in terms of...- <b>Need to Know &amp; Understand</b>	136	1	5	3.46	0.980
Q6_9 Which of the categories on the following list, do you feel is most important to you in terms of...-Other:	12	1	5	3.67	1.231
Valid N (listwise)	11				

*Hypothesis (3)*

Hypothesis (3) was addressed next on the study, in order to prevent leading the participant and obtain a more accurate knowledge assessment [CURRENT KNOWLEDGE OF MASLOW'S HIERARCHY ASSOCIATION DATA]. This section is an attempt to prove Maslow's hierarchy is intuitive enough for others to place categories in the same hierarchical order of importance as Maslow and the associated definitions are well known. Other was chosen between uncertain and somewhat important (3.67 mean on the 5-point Likert scale). The text option of other resulted in: "cleanliness and comfort."

(H3): There is no association between Maslow's established order of hierarchy and Maslow's order of hierarchy in the home (Figure 12). Safety needs do correlate with the Maslow's pyramid of most important; however, the next level, according to the data, would result with belonging and love needs, then aesthetic needs, then physiological needs (Figure 12). However, these levels were rated according to their relevance to home.

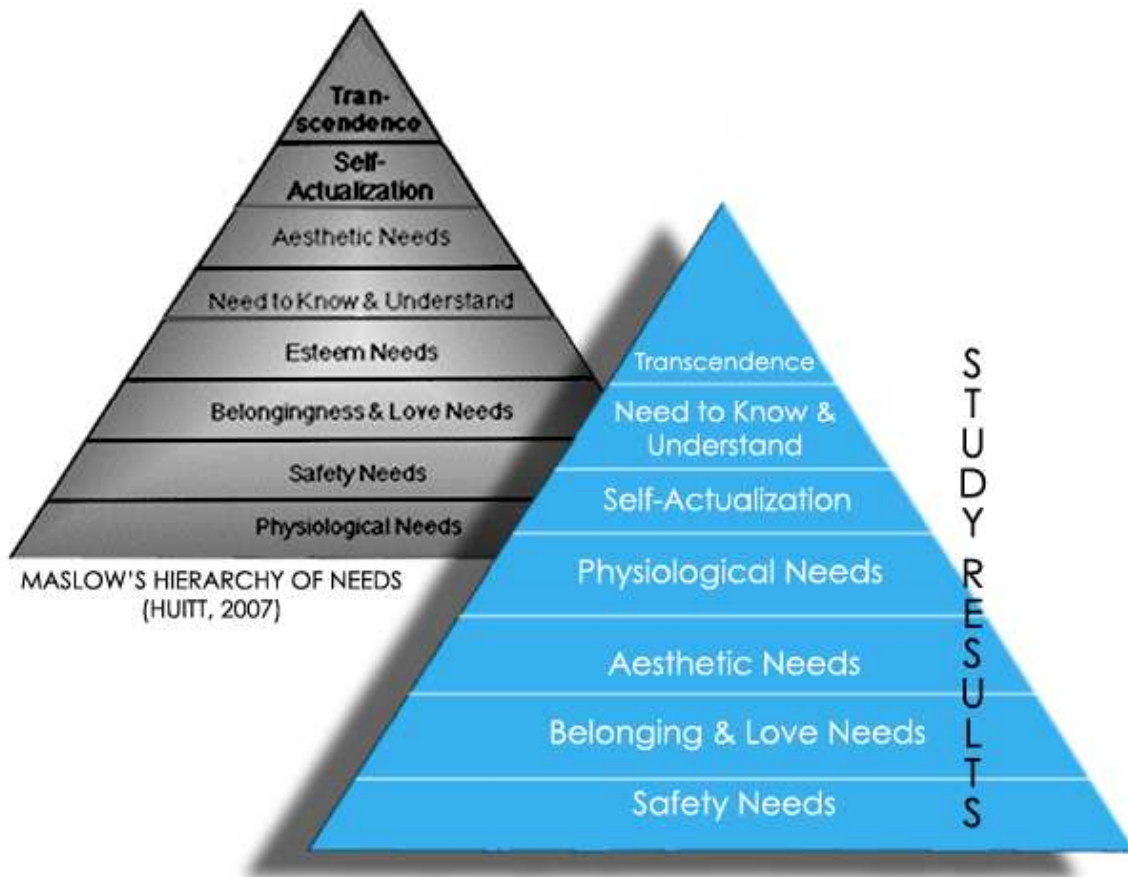


Figure 12. Ranking of most important (bottom) to least important (top) of Maslow's levels of need in relation to home, according to data based on a 5-point Likert scale mean (refer to Figure 11 and Table 3)

(H3): There is, however, a positive association between importance ratings and the relationship these categories have to home with interior design categories (Figure 13).

- The design category of control shows a positive association with safety needs.
- The design category of personalization shows a positive association with esteem needs.
- The design category of aesthetics shows a positive association with aesthetic needs.
- The design category of social engagement shows a positive association with belonging and love needs.

(H3): There is no association with the design category of interest with the need to know and understand (Figure 13).

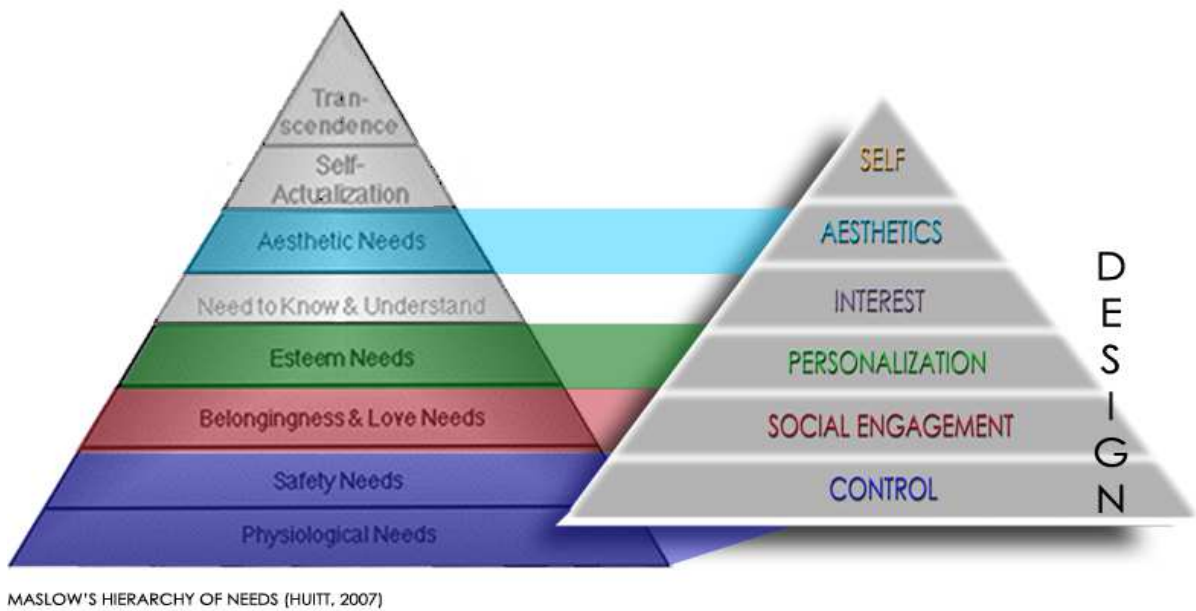


Figure 13. Corresponding levels indicating important associating relationships (data based on sig. (2-tailed) crosstab reference) (refer to Figure 14)

Unfortunately, due to an inability to analyze the data, the study was unable to verify that in fact Maslow's terminology is well known and/or intuitive to the participants.

(H3): This hypothesis analysis was unmet and void. Establishing that the definitions of terms associated with Maslow's hierarchy are well known was unable to be analyzed due to a methodology flaw.

*Placeness* was defined:

Unrelated to duration and resulting in a lasting emotional, psychological and physical effect of space association, *placeness* is an accumulation of an individual's holistic, environmental preferences and comfortability. Requiring the engagement of territorial control, social interaction, and memorable sensory experience, *placeness* results in an intimate, permanent familiarity that becomes part of one's conscious and unconscious self-identity. It shapes the relevance, remembrance and reflection of our past, present, and future self.

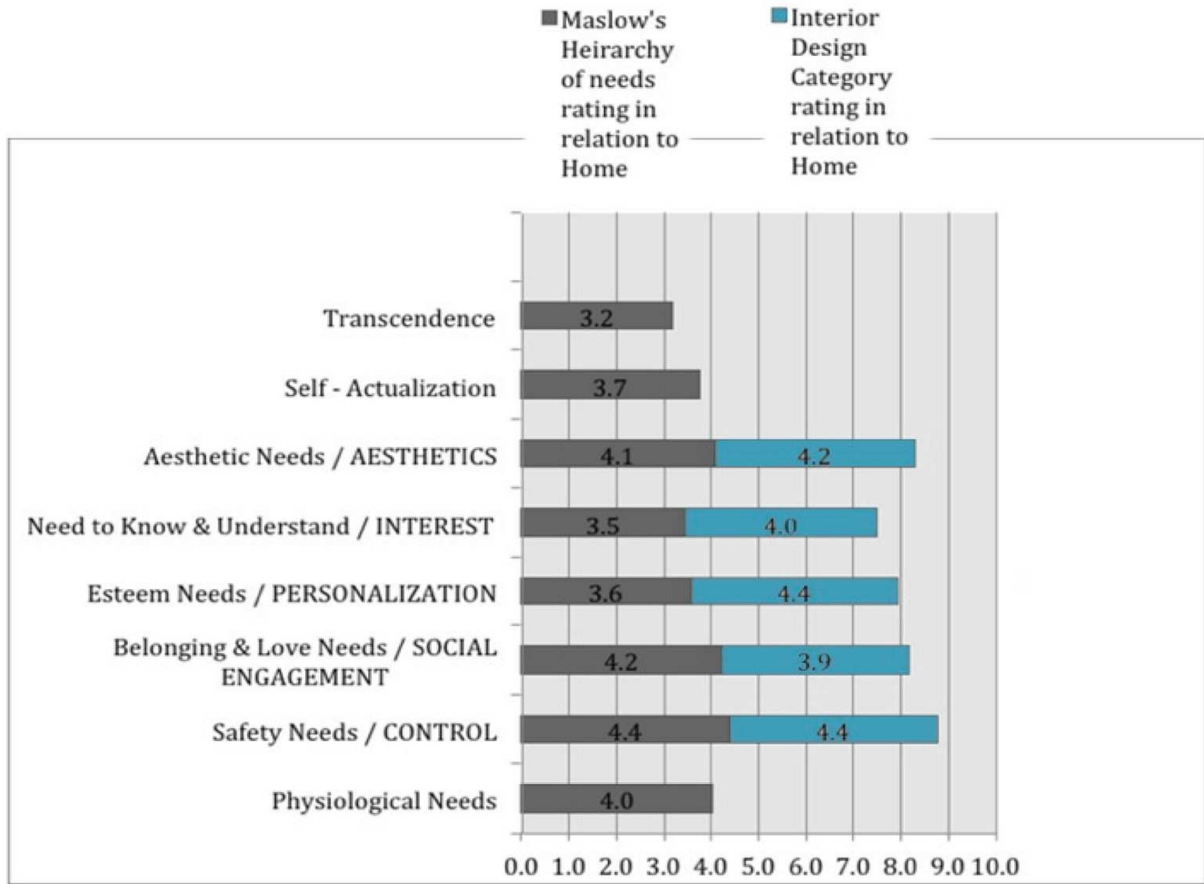


Figure 14. Maslow's established hierarchy of needs pyramid related study results of importance rating of needs and home (data based on 5-point Likert scale mean)

### *Hypothesis (2)*

Hypothesis (2) establishes *Placeness*, as defined above, is achieved on varying levels within the proposed correlating pyramid, dependent on personal variables related to self-identity (conscious and unconscious) due to the innate, reflection of self [PLACE PREFERENCES DATA].



Figure 15. Proposed design pyramid

The definition of *placeness* was available to be referenced while choosing the point of establishment on the pyramid above (Figure 15) in Question 9 of the study.

If we define *placeness* as an interaction between self-actualization and place, depict the point *placeness* is achieved for you, in the pyramid below. (Question 9)

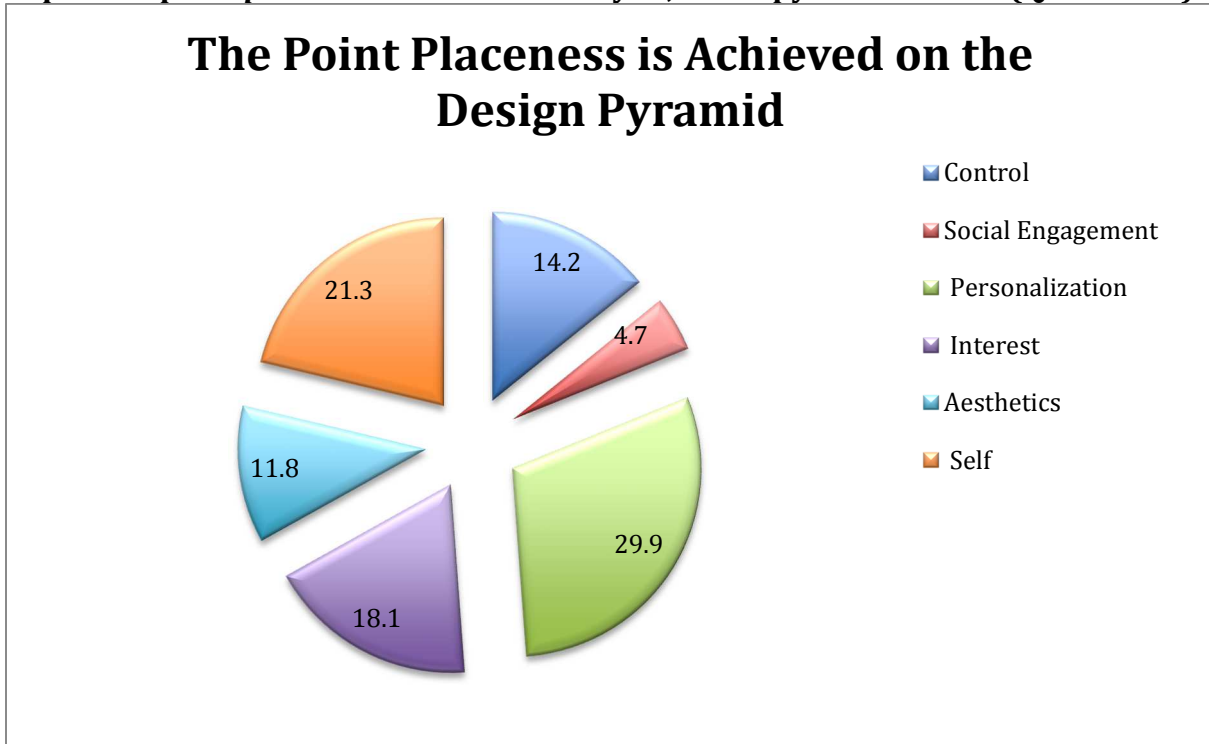


Figure 16. The point *placeness* is achieved on the proposed interior design category pyramid (based on valid percentage) (refer to Table 4)

Table 4. Survey results related to Question 9: based on provided definition of *placeness*, the cumulative point where *placeness* is achieved was depicted on the proposed design pyramid (data based on valid percentage)

**Point Placeness is Achieved on the Design Pyramid Table**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 1 - Control	18	12.5	14.2	14.2
	2 2 - Social Engagement	6	4.2	4.7	18.9
	3 3 - Personalization	38	26.4	29.9	48.8
	4 4 - Interest	23	16.0	18.1	66.9
	5 5 - Aesthetics	15	10.4	11.8	78.7
	6 6 - Self	27	18.8	21.3	100.0
	Total	127	88.2	100.0	
Missing	System	17	11.8		
Total		144	100.0		

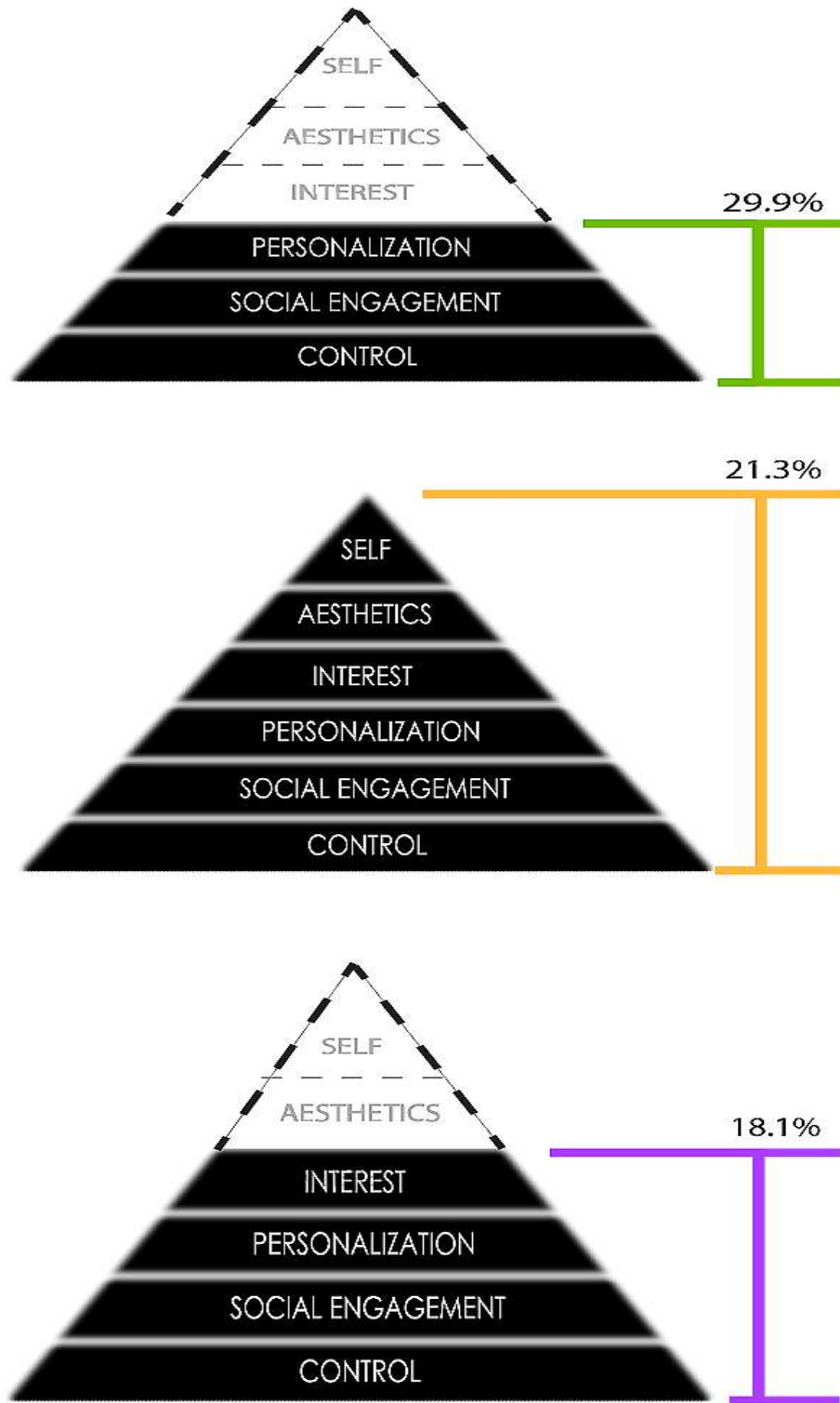


Figure 17. Study ranking results related to interior design category pyramid and the establishment of *placeness* (refer to Figure 16)

(H2): The most prevalent point of placement establishment was chosen at the level of personalization (29.9%). There is no distinct associating data that predicts “Personalization” preference, in either the life-style motive data or self-image data results, as proposed. [PLACE PREFERENCES DATA] and [INDIVIDUAL ROLES OF SELF DATA] have no important associating results to depict dependence.

The following section is in relation to [INDIVIDUAL ROLES OF SELF DATA]. Due to the two-part involvement of place and self, this study is also attempting to depict inter-relationship with participants’ definition of self and their preferences for place.

**Upon entering into my home, I would like my entryway or foyer to project \_\_\_\_\_.  
(Question 10)**

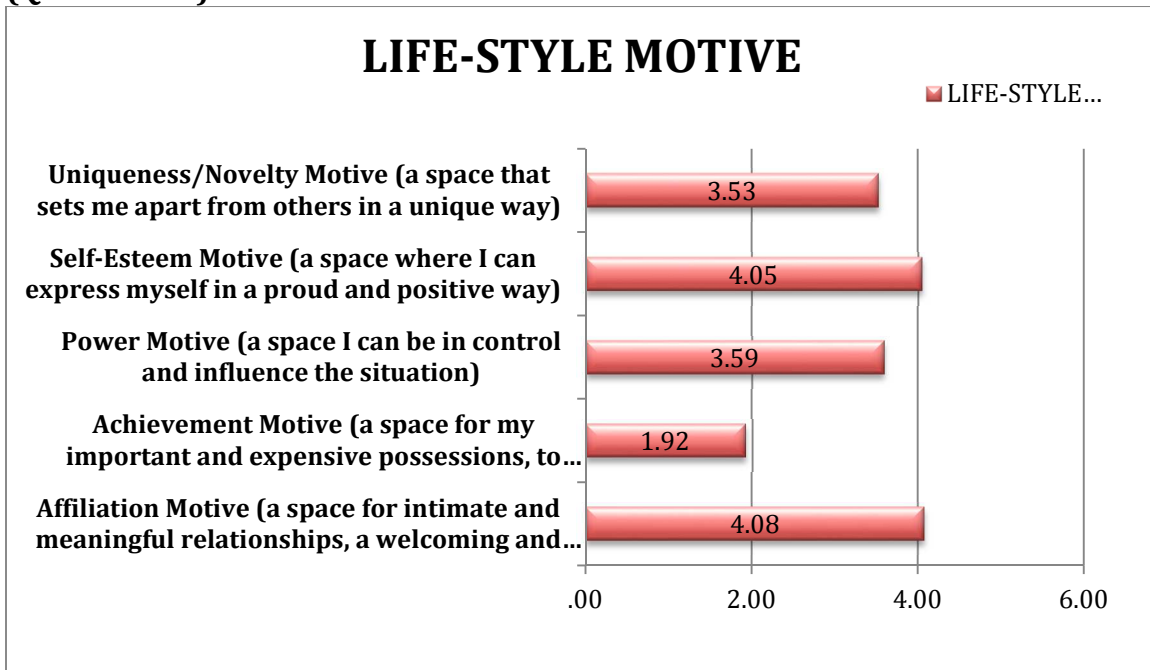


Figure 18. Study results of importance ratings related to depicted life-style motives projected in a person’s entryway/foyer (data based on 5-point Likert scale mean)



Table 5. Survey results related to Question 10: importance ratings related to life-style motives projected in a person's entryway/foyer, data based on mean of 5-point Likert [not very important (1) to very important (5)]

Survey Question	N	Minimum	Maximum	Mean	Std. Deviation
Q10_1 "Upon entering into my home, I would like my entryway or foyer to project _____.\" (Please rat... <b>A space for intimate and meaningful relationships, a welcoming and friendly space to connect with others</b>	125	1	5	4.08	1.029
Q10_2 "Upon entering into my home, I would like my entryway or foyer to project _____.\" (Please rat... <b>A space for my important and expensive possessions, to show my achievements and status</b>	125	1	5	1.92	1.147
Q10_3 "Upon entering into my home, I would like my entryway or foyer to project _____.\" (Please rat... <b>A space I can be in control and influence the situation</b>	124	1	5	3.59	1.141
Q10_4 "Upon entering into my home, I would like my entryway or foyer to project _____.\" (Please rat... <b>A space where I can express myself in a proud and positive way</b>	125	1	5	4.05	1.069
Q10_5 "Upon entering into my home, I would like my entryway or foyer to project _____.\" (Please rat... <b>A space that sets me apart from others in a unique way</b>	125	1	5	3.53	1.215
Valid N (listwise)	124				

#### *Hypotheses (4)*

Hypothesis (4) displays individual variances in depictions of self, related to motive.

Place as a positive reflection of self is dependent on the individual's interpretation of one's self and therefore their specific life-style motive. The importance ratings involved five criteria to test the hypothesis:

- Criterion 1 (CR1): Affiliation motive
- Criterion 2 (CR2): Achievement motive
- Criterion 3 (CR3): Power motive
- Criterion 4 (CR4): Self-esteem motive
- Criterion 5 (CR5): Uniqueness/Novelty motive

Table 6. Crosstab association of Question 10 and Question 4 survey results: importance rating of lifestyle motive vs. importance rating of design categories in the home, based on mean of 5-point Likert scale [not very important (1) to very important (5)]

**Lifestyle Motive correlated with Home preferences and design categories Table**

	Control (n=18)	Social Engagement (n=6)	Personalization (n=38)	Interest (n=23)	Aesthetics (n=15)	Self (n=27)
<b>Affiliation Motive</b> - A space for intimate and meaningful relationships, a welcoming and friendly space to connect with others	3.6	4.5	4.3	4.0	4.1	4.0
<b>Achievement Motive</b> - A space for my important and expensive possessions, to show my achievements and status	2.2	2.7	1.7	1.9	2.0	1.9
<b>Power Motive</b> - A space I can be in control and influence the situation	3.9	4.0	3.4	3.3	3.4	3.8
<b>Self-Esteem Motive</b> - A space where I can express myself in a proud and positive way	4.0	4.2	4.2	3.9	3.6	4.2
<b>Uniqueness/Novelty Motive</b> - A space that sets me apart from others in a unique way	3.6	3.0	3.5	3.4	3.4	3.8

**Design category preferences related to Life-style Motive Table**

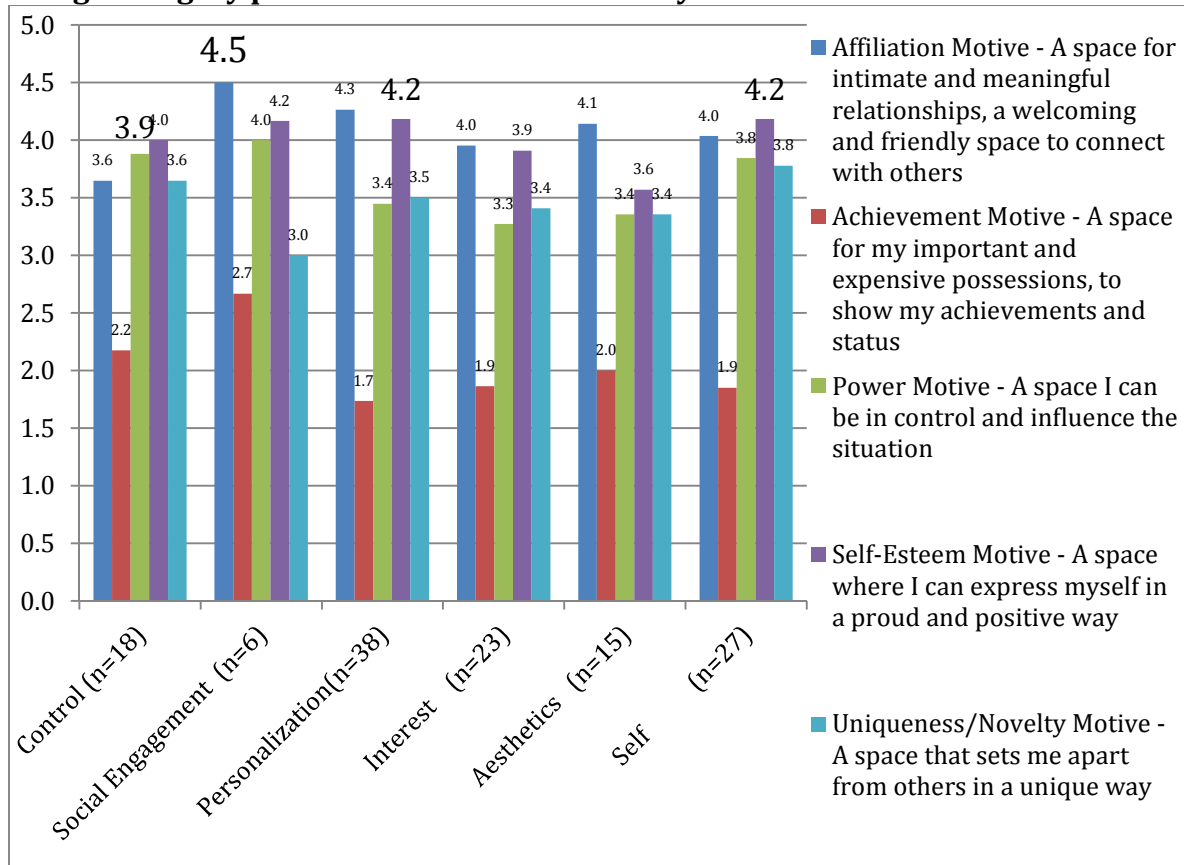


Figure 19. Association of lifestyle motive and interior design category preferences, in relation to home (data based on 5-point Likert scale mean)

Of the six people who rated importance of “social engagement” high upon first entry into their home, also rated the “Affiliation Motive” or a space for meaningful relationships, as high in importance. Otherwise, there were no important associations with corresponding life-style motives and design categories.

(H4): The data did not lead to a strong support of the proposed hypothesis, in relation to life-style motive and design category preference.

Table 7. Survey results related to Question 11: importance rating of reflected self-image upon first entry into the home, based on mean of 5-point Likert scale [not very important (1) to very important (5)]

**Reflected Self-Image Table**

Survey Question	N	Minimum	Maximum	Mean	Std. Deviation
Q11_1 Upon entry into your home, how important is it to you for your entryway or foyer to reflect you....Actual self-image	125	1	5	3.52	1.242
Q11_2 Upon entry into your home, how important is it to you for your entryway or foyer to reflect you....Ideal self-image (how you would like to see yourself)	124	1	5	3.49	1.206
Q11_3 Upon entry into your home, how important is it to you for your entryway or foyer to reflect you....Social self-image (how you feel others see you)	125	1	5	3.03	1.313
Q11_4 Upon entry into your home, how important is it to you for your entryway or foyer to reflect you....Ideal social self-image (how you would like others to see you)	125	1	5	3.42	1.259
Q11_5 Upon entry into your home, how important is it to you for your entryway or foyer to reflect you....Expected social self-image (how you expect to see yourself in the future)	125	1	5	3.31	1.279
Valid N (listwise)	124				

Upon entering into your home, how important is it to you for your entryway or foyer to reflect your \_\_\_\_? (Question 11)

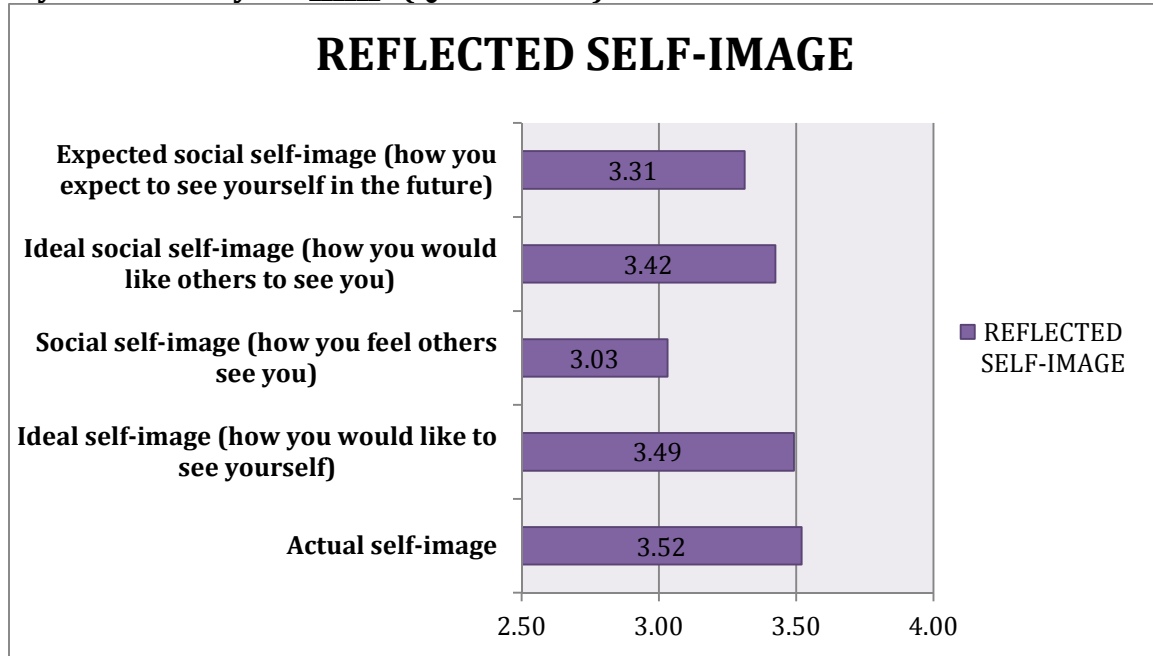


Figure 20. Projected self-image category preferences, in relation to entryway/foyer (data based on 5-point Likert scale mean)

### *Hypotheses (5)*

Hypothesis 5 (H5): Place as a positive reflection of self is dependent on the individual's interpretation of one's self and their self-image. The importance ratings involved five self-image criteria used to test the hypothesis:

- Criterion 1 (CR1): Expected social self-image (how you expect to see yourself in the future)
- Criterion 2 (CR2): Ideal social self-image (how you would like others to see you)
- Criterion 3 (CR3): Social self-image (how you feel others see you)
- Criterion 4 (CR4): Ideal self-image (how you would like to see yourself)
- Criterion 5 (CR5): Actual self-image

(H5): No associating relationships were found in relation to place preferences data.

### *Hypothesis (6)*

Hypothesis 6 (H6): Associating stimulus preferences with *placeness* ranking, depicts self-reflection in a space.

Non-screeners process nonessentials, paying attention to all their environment has to offer. Screeners are more selective and subconsciously prioritizing the components of a complex situation, attending only to the relevant factors. Screeners effectively reduce the total environmental load perceived. Therefore, the same amount of environmental stimulus will cause greater amounts of and longer-lasting arousal levels for non-screeners than for screeners and also cause the non-screener to reach the point of avoidance earlier than the screener, in an avoidance-approach scenario (Rengel, 2007).

Therefore, this makes it necessary for “designers to understand their clients and create separate high stimulation and low stimulation areas or by creating flexible spaces in which the overall level of arousal can be easily altered” (Miller & Schlitt, 1985, p. 99). Design elements depicting screener vs. non-screener preferences were listed on the survey in an attempt to further capture “self” preferences in our environment. Two criteria were used to test this hypothesis:

- Criterion 1 (CR1): Non-screener
  - Stimulation reducing design elements
- Criterion 2 (CR2): Screener
  - Stimulation inducing design elements

**Relative to your idea of place, which one of these environments would you prefer? (Question 12)**

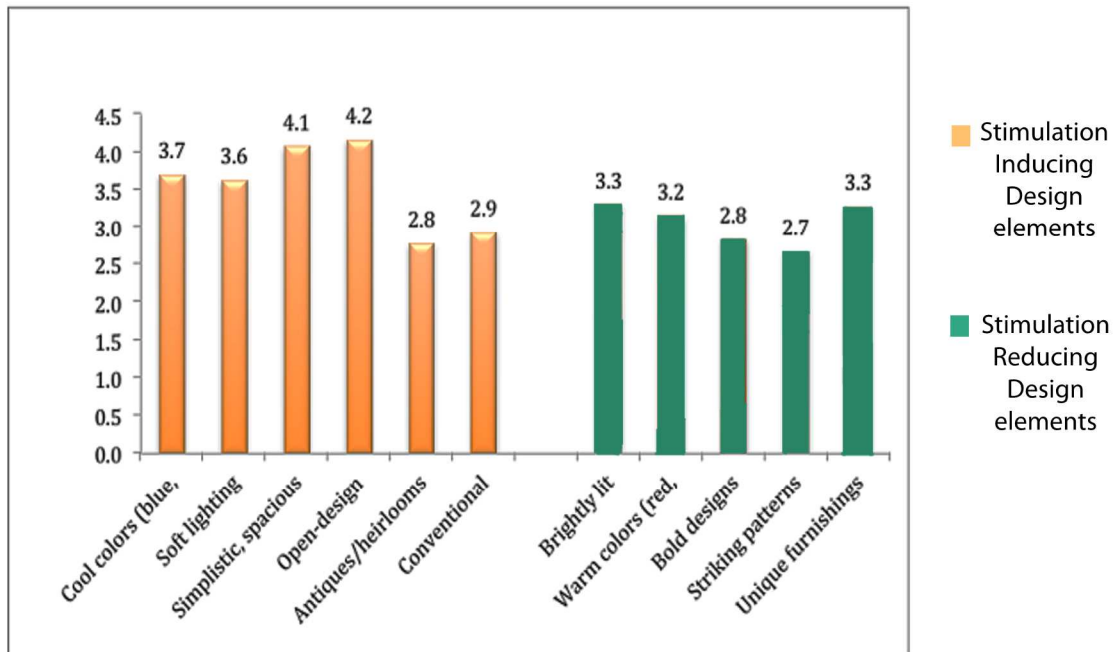


Figure 21. No delineation of screener vs. non-screener preference groupings (data based on 5-point Likert scale mean)

Stimulation inducing design elements were expected to result in preference clusters, to indicate stimuli “screening” individuals. On the contrary, stimuli “nonscreening” individuals were expected to predominately choose stimuli reducing design elements.

(H6): No grouping preferences were discovered.

Table 8. Survey results related to Question 12: importance rating of certain design elements that are either stimulation inducing or stimulation reducing, based on mean of 5-point Likert scale [not very important (1) to very important (5)]

**Screeners vs. Non-screener Table**

Survey Question	N	Minimum	Maximum	Mean	Std. Deviation
Q12_1 Relative to your idea to place, which one of these environments would you prefer? (Please rate...-Cool colors (blue, green, purple, gray)	125	1	5	3.70	1.138
Q12_2 Relative to your idea to place, which one of these environments would you prefer? (Please rate...-Soft lighting	123	1	5	3.63	1.162
Q12_3 Relative to your idea to place, which one of these environments would you prefer? (Please rate...-Simplistic, spacious rooms	124	1	5	4.07	0.989
Q12_4 Relative to your idea to place, which one of these environments would you prefer? (Please rate...-Open-design	125	1	5	4.15	0.992
Q12_5 Relative to your idea to place, which one of these environments would you prefer? (Please rate...-Antiques/heirlooms	123	1	5	2.77	1.311
Q12_6 Relative to your idea to place, which one of these environments would you prefer? (Please rate...-Conventional	124	1	5	2.92	1.200
Q12_7 Relative to your idea to place, which one of these environments would you prefer? (Please rate...-Brightly lit	125	1	5	3.30	1.239
Q12_8 Relative to your idea to place, which one of these environments would you prefer? (Please rate...-Warm colors (red, orange, yellow)	124	1	5	3.15	1.183
Q12_9 Relative to your idea to place, which one of these environments would you prefer? (Please rate...-Bold designs	125	1	5	2.83	1.203
Q12_10 Relative to your idea to place, which one of these environments would you prefer? (Please rate...-Striking patterns	124	1	5	2.66	1.262
Q12_11 Relative to your idea to place, which one of these environments would you prefer? (Please rate...-Unique furnishings	124	1	5	3.27	1.339
Valid N (listwise)	117				

## V. DISCUSSION

### Overview

Whether you are a business traveler, a new university student, part of a transient population, or a new homeowner, the establishment of *placeness* is essential to fulfilling your highest self. This study was conducted to define design categories that are part of that vital partnership we have with our innate needs and our environment. Establishing meaning and association with historical preferences, engaging emotional and sensory attachment and allowing a holistic space experience can create an intimate familiarity with place. Research related to creating more nourishing built environments is needed, especially in our homes. This study hopes to start a discussion on relevant design aspects and applications that speak to the study hierarchy and needs association.

### Major Themes Identified

*Categories valued in needs development are also valued in the environment*

The scope of the hypotheses was the association between design categories and Maslow's hierarchy of needs: what is most important to a person's development is also ranked most important in their environment. Through this association, a person may more aptly reach their highest self. This corresponded with the results in positive associations with each pairing (except "need to know" and "interest"). Due to ambiguity in certain terminologies related to design and higher levels of our self-needs, an extensive literature review was necessary. This relationship with our built environment and our fundamental interconnection and development was also defined through the literature review and ultimately the definition of *placeness*.



*Initial design preferences upon entry are carried through the home*

The entryway and foyer are proven to be just as important as the rest of the home and should not be neglected in the design. The transition to inside your home can capture *placeness* and set the stage.

*Personalization is the most prevalent preference point of achieved placeness*

Personalization was chosen as the point of *placeness* achievement, building upon control and social engagement. This study supports these statements. Miller and Schlitt (1985) chose to discuss control first, believing it is probably at the root of all other needs. “To appropriate space, to order and mold it into a form that pleases us and affirms who we are, is a universal need” (Marcus, 1995, p. 68). “The failure to exercise control in the home threatens our emotional well-being as a number of personally important needs go unsatisfied” (Miller & Schlitt, 1985, p. 2). These findings correlate with Maslow’s hierarchy of needs.

*Design category pairings were prevalent*

The data showed interesting relationships between certain design categories. This would depict a preference indicator that may be helpful with client communication and needs. These relationships were between:

- Aesthetics/Interest
- Personalization/Aesthetics
- Control/Social engagement
- Personalization/Control

These relationships also portray the intertwined definitions and cross-references of the design categories.

## Conclusions

The study began from the question: what do we absolutely need from our built environments after the basic needs are met: safety, function, shelter, etc.? Building upon the idea of dwellings as shelter, how can our homes become more? How can our homes facilitate and nurture the development of our best selves?

Varying fundamental design approaches are needed to meet the needs of our diverse clients. An established partnership with an established scientific needs hierarchy, such as Maslow's, would give design increased credibility and importance. This concept also provides another way of client/designer communication, prioritizing client needs by making sure the bottom, most important levels, are satisfied first. The categories and subcategories give a platform of reference thus creating more concrete and concise design terms to establish the framework with a needs based approach.

Viewing the entryway and foyer as an initial communication that involves several layers of self, gives a holistic approach to design. Ignoring the transition area into our homes may cause a miss-communication with ourselves and our environment. We must strive to create welcoming, delineated areas of entry to separate from the stressful world outside. By merely defining *placeness* and depicting the various aspects involved in establishing *placeness*, designers can reference this term for better design results, striving for place to be a positive reflection of self.

The study anticipated a more conclusive association between the [INDIVIDUAL ROLES OF SELF DATA] and [PLACE PREFERENCES DATA]. However, in conclusion, findings were inconclusive due to methodology: ambiguous terminology, unknown hierarchy format, and the imprecise Likert scale.

### Limitations of Study

- The survey response was lower than expected. Out of 3,000 emails sent, 144 surveys were returned and 124 were fully completed. The survey was sent during the end of the semester and if sent during a less busy time, would perhaps result in a higher response rate.
- The study attempted to reach more established residents, however the student population is generally renters.
- The survey was sent across all colleges in the university. The terminology used has design references and therefore may have different interpretations and associative meanings for populations outside of the design college.
- Certain terminology used to define levels could be viewed as ambiguous, such as “aesthetics,” “beauty,” and “pleasure.” Due to the literature review, “sensory” was a sub-category of “aesthetics” and was a segment of the level’s definition. However, others may see “sensory” as a part of “interest” and “nature” as a subcategory of “aesthetics.” There exists an ambiguity and interconnection with the terminology.
- The study was a preliminary approach to defining and establishing a relationship through preferences. A more definitive and concrete study approach is needed.
- Rating of importance may be miss-interpreted: the base of the pyramid is most important vs. the pinnacle is most important. This study based importance as most important at the base.
- The template based on priority may be confusing to participants if they are not familiar with the Maslow’s hierarchy format: the most important, bottom levels must be met before progressing upwards.
- The population polled may be skewed toward: liberal, educated, white, Mid-western. A more diverse population would be beneficial for a broader perspective.

### Recommendations for Future Research

Based on the finding of this survey, the listed recommendations are as follows:

- Expand the polling outside the university setting, focusing on homeowners.
- Conduct the survey during weeks other than near final week when involving university associated participants.
- In reference to Mehrabian & Russell (1974), investigate the avoidance/approach study's relationship to place, involving pleasure/dominance/arousal variables. This tactic would hopefully depict the initial response an individual has to a certain place and extract a more succinct association with specific categories of self.
- Explore different methodologies in order to obtain a more precise delineation regarding participant preferences and therefore allowing concrete conclusions.
- Research the important association between branding and the experience with residential emotional stimulus. Sensory engagement and emotional involvement is important in creating *placeness* and place – identity. Sensory experiences are also required to cement the emotional bonding critical to the branding experience in consumer based/retail design. If we think of our homes as a lifestyle experience, one we are projecting or reflecting, then how could the lifestyle branding so many marketing ploys are embracing not correlate (Rengel, 2007)?

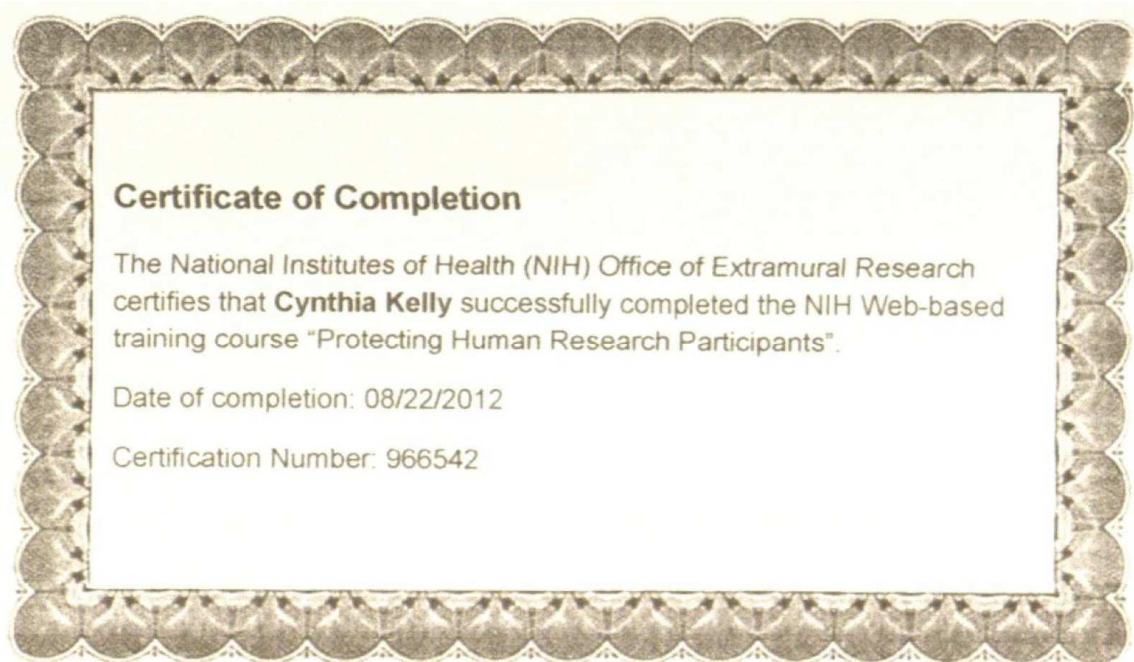
Associating interior design and our fundamental needs is in itself an essential platform for future study. Findings would both elevate the profession of design and facilitate nurturing environments. The majority of interior design research is based on commercial and healthcare design, neglecting each and every one of our needs for home. This study attempted to define our personal innate reactions to place through relationships, associations, and comparisons. The hypotheses required comparisons based on personal preferences, proving to be a descriptive theory based topic. In order to extract more precise conclusions merely defining tagged indicator elements is essential. Regardless of the difficulty to define and prove our relationship to *placeness* with statistics, the concept is an exciting foundation for future research. I believe the simple act of shedding light on the topic and interior design's integral role is an important first step accomplished by this study.

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## APPENDIX A: HUMAN SUBJECTS APPROVAL



## APPENDIX B: IRB SURVEY APPROVAL

**IOWA STATE UNIVERSITY**  
OF SCIENCE AND TECHNOLOGY

Institutional Review Board  
Office for Responsible Research  
Vice President for Research  
1138 Pearson Hall  
Ames, Iowa 50011-2207  
515 294-4506  
FAX 515 294-4267

**Date:** 4/17/2015

**To:** Cynthia Kelly  
3109 Tumbery Ct #180  
Ames, IA 50014

**CC:** Dr. Fred Malven  
283 Design  
Nora Ladjahasan  
326 College of Design

**From:** Office for Responsible Research

**Title:** Place as a Positive Reflection of Self

**IRB ID:** 15-227

**Study Review Date:** 4/16/2015

The project referenced above has been declared exempt from the requirements of the human subject protections regulations as described in 45 CFR 46.101(b) because it meets the following federal requirements for exemption:

- (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey or interview procedures with adults or observation of public behavior where
  - Information obtained is recorded in such a manner that human subjects cannot be identified directly or through identifiers linked to the subjects; or
  - Any disclosure of the human subjects' responses outside the research could not reasonably place the subject at risk of criminal or civil liability or be damaging to their financial standing, employability, or reputation.

The determination of exemption means that:

- **You do not need to submit an application for annual continuing review.**
- **You must carry out the research as described in the IRB application.** Review by IRB staff is required prior to implementing modifications that may change the exempt status of the research. In general, review is required for any modifications to the research procedures (e.g., method of data collection, nature or scope of information to be collected, changes in confidentiality measures, etc.), modifications that result in the inclusion of participants from vulnerable populations, and/or any change that may increase the risk or discomfort to participants. Changes to key personnel must also be approved. The purpose of review is to determine if the project still meets the federal criteria for exemption.

Non-exempt research is subject to many regulatory requirements that must be addressed prior to implementation of the study. Conducting non-exempt research without IRB review and approval may constitute non-compliance with federal regulations and/or academic misconduct according to ISU policy.

**Detailed information about requirements for submission of modifications can be found on the Exempt Study Modification Form.** A Personnel Change Form may be submitted when the only modification involves changes in study staff. If it is determined that exemption is no longer warranted, then an Application for Approval of Research Involving Humans Form will need to be submitted and approved before proceeding with data collection.

Please note that you must submit all research involving human participants for review. **Only the IRB or designees may make the determination of exemption**, even if you conduct a study in the future that is exactly like this study.

Please be aware that **approval from other entities may also be needed**. For example, access to data from private records (e.g. student, medical, or employment records, etc.) that are protected by FERPA, HIPAA, or other confidentiality policies requires permission from the holders of those records. Similarly, for research conducted in institutions other than ISU (e.g., schools, other colleges or universities, medical facilities, companies, etc.), investigators must obtain permission from the institution(s) as required by their policies. **An IRB determination of exemption in no way implies or guarantees that permission from these other entities will be granted.**

Please don't hesitate to contact us if you have questions or concerns at 515-294-4566 or [IRB@iastate.edu](mailto:IRB@iastate.edu).



## APPENDIX C: PLACE AS A POSITIVE REFLECTION OF SELF SURVEY

### Default Question Block

The purpose of this study is to define interior design elements and categories that positively attach a person to a space.

Your participation is voluntary and confidential and will **take approximately 10 minutes** to answer the following questionnaire.

**Please complete by Friday (May 1st, 2015).**

The data will have password-protection, located in the College of Design and will only be accessed by the researchers.

You have the opportunity to enter a drawing for a \$25 gift certificate from Target. Please provide your contact information using the link provided at the end of the survey, in order to be included in the drawing.

Are you willing to participate?

Yes

☐

No

☐

The proposed categories:

#### **Interest**

(Variety, Order, and Nature)

#### **Personalization**

(Reflection, Projection, and Identity)

#### **Aesthetics**

(Beauty, Pleasure, and Sensory)

#### **Control**

(Familiarity, Comfort, and Choice)

#### **Social Engagement**

(Privacy, Socialization, and Interaction gradient)

Q4

**As defined above, which of these categories do you feel is most important to you, in terms of your “HOME”?**  
(Please rate individually, on the scale below)

	Not Very Important	Somewhat Not Important	Uncertain	Somewhat Important	Very Important
Interest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personalization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aesthetics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Engagement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other: <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5

**As defined above, how important is seeing these attributes and/or interior design characteristics upon first entry into a space, such as your entryway or foyer?** (Please rate individually, on the scale below)

	Not Very Important	Somewhat Not Important	Uncertain	Somewhat Important	Very Important
Interest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personalization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aesthetics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Engagement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other: <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q6

**Which of the categories on the following list, do you feel is most important to you in terms of your “HOME”?** (Please rate individually, on the scale below)

	Not Very important	Somewhat Not Important	Uncertain	Somewhat Important	Very Important
Aesthetic Needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Esteem Needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safety Needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physiological Needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Belonging & Love Needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self - Actualization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transcendence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Need to Know & Understand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other:					



Q7

For each of the definitions below, assign the term by dragging to the box which you feel is the best definition.

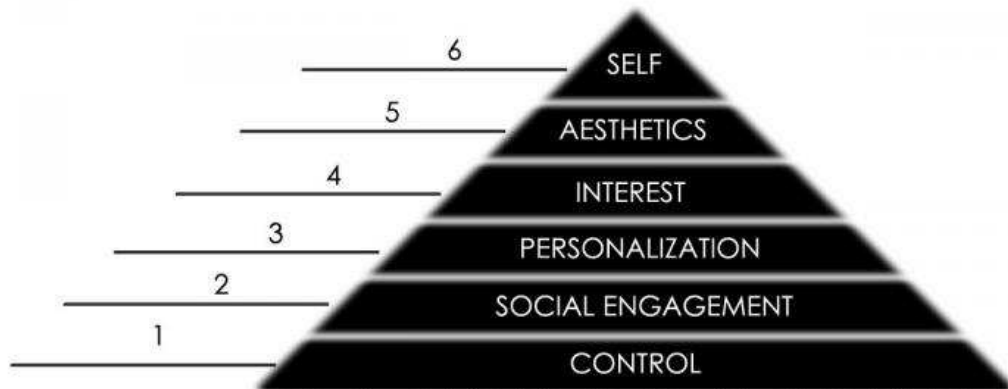
**Items**  
 Aesthetic Needs  
 Belonging & Love Needs  
 Safety Needs  
 Self - Actualization  
 Transcendence  
 Physiological Needs  
 Esteem Needs  
 Need to Know & Understand

Protection from potentially dangerous situations, physical and psychological	The esteem and respect of others, self-esteem and self-respect
Food, Drink, Oxygen, Rest, Sex, Temperature regulation, Elimination	Highest, holistic human consciousness and/or experience or existence beyond the norm
Knowledge and understanding	Realizing your full potential
Receiving and giving love, affection, trust and acceptance of a group	Beauty – symmetry, balance, form

**“PLACE” definition:**

Unrelated to duration and resulting in a lasting emotional, psychological and physical affect of space association, “PLACE” is an accumulation of an individual’s holistic, environmental preferences and comfortability. Requiring the engagement of territorial control, social interaction, and memorable sensory experience, “PLACE” results in an intimate, permanent familiarity that becomes part of one’s conscious and unconscious self-identity. It shapes the relevance, remembrance and reflection of our past, present and future self.

If we define placeness as an interaction between self-actualization and place, depict the point “PLACENESS” is achieved for you, in the pyramid below. (Please select the associating number reference.)



Q9

1 - Control    2 - Social Engagement    3 - Personalization    4 - Interest    5 - Aesthetics    6 - Self

☐    ☐    ☐    ☐    ☐    ☐

Q10

**"Upon entering into my home, I would like my entryway or foyer to project \_\_\_\_."** (Please rate individually, on the scale below)

	Not Very important	Somewhat Not Important	Uncertain	Somewhat Important	Very Important
A space for intimate and meaningful relationships, a welcoming and friendly space to connect with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A space for my important and expensive possessions, to show my achievements and status	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

A space I can be in control and influence the situation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A space where I can express myself in a proud and positive way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A space that sets me apart from others in a unique way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q11

**Upon entry into your home, how important is it to you for your entryway or foyer to reflect your \_\_\_\_\_? (Please rate individually, on the scale below)**

	Not Very important	Somewhat Not Important	Uncertain	Somewhat Important	Very Important
Actual self-image	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ideal self-image (how you would like to see yourself)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social self-image (how you feel others see you)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ideal social self-image (how you would like others to see you)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expected social self-image (how you expect to see yourself in the future)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q12

**Relative to your idea to place, which one of these environments would you prefer? (Please rate individually, on the scale below)**

	Not Very important	Somewhat Not Important	Uncertain	Somewhat Important	Very Important
Cool colors (blue, green, purple, gray)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soft lighting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Simplistic, spacious rooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Open-design	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Antiques/heirlooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conventional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brightly lit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Warm colors (red, orange, yellow)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bold designs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Striking patterns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unique furnishings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Demography

Are you a Homeowner?

- ☐ Yes  
☐ No

Gender?

- ☐ Male  
☐ Female

Are you a Student or Faculty?

- ☐ Student  
☐ Faculty/Staff

What year of college are you in or have completed?

- ☐ Junior  
☐ Senior  
☐ Graduate Student  
☐ Masters  
☐ PhD  
☐ none

Are you an International Student?

- ☐ Yes  
☐ No  
☐ Not applicable

How would you describe yourself? (Choose one or more from the following racial group)

- ☐ American Indian or Alaska native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ White or Caucasian

Years of age?

Income bracket? (annual salary)

- ☐ under \$25,000
- ☐ \$25,000 -49,999
- ☐ \$50,000-74,999
- ☐ \$75,000-99,999
- ☐ \$100,000-124,999
- ☐ \$125,000-149,999
- ☐ \$150,000-199,999
- ☐ \$200,000 or more

Please click on this link to be included in the Target drawing: [https://iastate.qualtrics.com/SE/?SID=SV\\_4HgbPNrUISQYQDP](https://iastate.qualtrics.com/SE/?SID=SV_4HgbPNrUISQYQDP)

Thank you for your participation!